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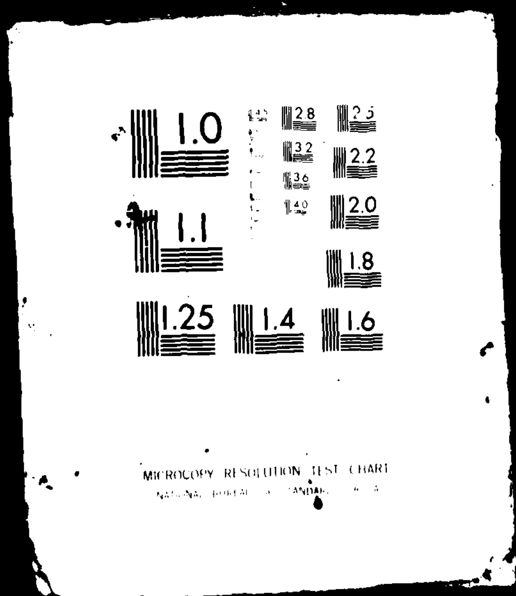

SUSQUEHANNA RIVER BASIN

OTSEGO LAKE DAM

OTSEGO COUNTY, NEW YORK
INVENTORY No. N.Y. 361

PHASE I INSPECTION REPORT
NATIONAL DAM SAFETY PROGRAM

APPROVED FOR PUBLIC RELEASE;
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NEW YORK DISTRICT, CORPS OF ENGINEERS
JULY 1981

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

READ INSTRUCTIONS BEFORE COMPLETING FORM

1. REPORT NUMBER

2. GOVT ACCESSION NO. AD-A109 745

3. RECIPIENT'S CATALOG NUMBER

4. TITLE (and Subtitle)
Phase I Inspection Report
Otsego Lake Dam
Susquehanna River Basin, Otsego County, New York
Inventory No. 361

5. TYPE OF REPORT & PERIOD COVERED
Phase I Inspection Report
National Dam Safety Program

6. PERFORMING ORG. REPORT NUMBER

7. AUTHOR(s)
HUGH C. FLAHERTY

8. CONTRACT OR GRANT NUMBER(s)
DACW51-81-C-0006

9. PERFORMING ORGANIZATION NAME AND ADDRESS
Flaherty-Giavara Associates
One Columbus Plaza
New Haven, CT 06510

10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS

11. CONTROLLING OFFICE NAME AND ADDRESS
Department of the Army
26 Federal Plaza New York District, CofE
New York, New York 10287

12. REPORT DATE

13. NUMBER OF PAGES

14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)
Department of the Army
26 Federal Plaza New York District, CofE
New York, NY 10287

15. SECURITY CLASS. (of this report)
UNCLASSIFIED

15a. DECLASSIFICATION/DOWNGRADING SCHEDULE

16. DISTRIBUTION STATEMENT (of this Report)

Approved for public release; Distribution unlimited.

17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)
Dam Safety
National Dam Safety Program
Visual Inspection
Hydrology, Structural Stability
Otsego Lake Dam
Otsego County
Susquehanna River Basin

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

This report provides information and analysis on the physical condition of the dam as of the report date. Information and analysis are based on visual inspection of the dam by the performing organization.

Examination of available documents and a visual inspection of the dam did not reveal conditions which constitute an immediate hazard to human life or property. However, the dam has some deficiencies that need to be evaluated and remedied. → next page

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

Using the Corps of Engineers' screening criteria for the initial review of spillway adequacy, it has been determined that the dam would be overtopped by all storms exceeding 29 percent of the Probable Maximum Flood (PMF) with the flashboards in place and 30 percent without them in place. Dam overtopping, the resulting instability of the overflow spillway and hence, dam breaching would cause water surface levels downstream to reach depths which would pose significant danger to residents. Therefore, the spillway is adjudged to be seriously inadequate and the dam is assessed as unsafe, nonemergency.

The classification "unsafe" applied to a dam because of a seriously inadequate spillway is not meant to connote the same degree of emergency as would be associated with an "unsafe" classification applied for a structural deficiency. It does mean that there appears to be a serious deficiency in spillway capacity and if a severe storm were to occur, overtopping and failure of the dam could take place, significantly increasing the hazard to life downstream of the dam.

PREFACE

This report is prepared under guidance contained in the Recommended Guidelines for Safety Inspection of Dams, for Phase I Investigations. Copies of these guidelines may be obtained from the Office of Chief of Engineers, Washington, D.C. 20314. The purpose of a Phase I investigation is to identify expeditiously those dams which may pose hazards to human life or property. The assessment of the general condition of the dam is based upon available data and visual inspections. Detailed investigation and analyses involving topographic mapping, subsurface investigations, testing, and detailed computational evaluations are beyond the scope of a Phase I Investigation; however, the investigation is intended to identify any need for such studies.

In reviewing this report, it should be realized that the reported condition of the dam is based on observations of field conditions at the time of inspection along with data available to the inspection team. In cases where the reservoir was lowered or drained prior to inspection, such action, while improving the stability and safety of the dam, removes the normal load on the structure and may obscure certain conditions which might otherwise be detectable if inspected under the normal operating environment of the structure.

It is important to note that the condition of a dam depends on numerous and constantly changing internal and external conditions, and is evolutionary in nature. It would be incorrect to assume that the present condition of the dam will continue to represent the condition of the dam at some point in the future. Only through frequent inspections can unsafe conditions be detected and only through continued care and maintenance can these conditions be prevented or corrected.

Phase I inspections are not intended to provide detailed hydrologic and hydraulic analyses. In accordance with the established Guidelines, the Spillway Test Flood is based on the estimated "Probable Maximum Flood" for the region (greatest reasonably possible storm runoff), or fractions thereof. Because of the magnitude and rarity of such a storm event, a finding that a spillway will not pass the test flood should not be interpreted as necessarily posing a highly inadequate condition. The test flood provides a measure of relative spillway capacity and serves as an aid in determining the need for more detailed hydrologic and hydraulic studies, considering the size of the dam, its general condition and the downstream damage potential.

PHASE I INSPECTION REPORT
NATIONAL DAM SAFETY PROGRAM
OTSEGO LAKE DAM
INVENTORY NO. NY 361
SUSQUEHANNA RIVER BASIN
OTSEGO COUNTY, NEW YORK

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APPENDICES

PHASE I INSPECTION REPORT
NATIONAL DAM SAFETY PROGRAM

Name of Dam: Otsego Lake Dam

State Located: New York

County: Otsego

Watershed: Susquehanna River Basin

Watercourse: Susquehanna River

Date of Inspection: April 9, 1981

ASSESSMENT

Examination of available documents and a visual inspection of the dam did not reveal conditions which constitute an immediate hazard to human life or property. However, the dam has some deficiencies that need to be evaluated and remedied.

Using the Corps of Engineers' screening criteria for the initial review of spillway adequacy, it has been determined that the dam would be overtopped by all storms exceeding 29 percent of the Probable Maximum Flood (PMF) with the flashboards in place and 30 percent without them in place. Dam overtopping, the resulting instability of the overflow spillway and hence, dam breaching would cause water surface levels downstream to reach depths which would pose significant danger to residents. Therefore, the spillway is adjudged to be seriously inadequate and the dam is assessed as unsafe, nonemergency.

The classification "unsafe" applied to a dam because of a seriously inadequate spillway is not meant to connote the same degree of emergency as would be associated with an "unsafe" classification applied for a structural deficiency. It does mean that there appears to be a serious deficiency in spillway capacity and if a severe storm were to occur, overtopping and failure of the dam could take place, significantly increasing the hazard to life downstream of the dam.

It is recommended that the following additional investigations be performed by a registered professional engineer engaged by the owner:

1. Conduct a detailed hydrologic and hydraulic analysis to more accurately determine the site specific characteristics of the watershed.

2. Systematically investigate the seepage behind the left abutment wall and monitor it on a continuing basis, especially during periods of high flow. If the rate and extent of the seepage progressively increase, assess the causes of the seepage and recommend remedial measures.

3. Evaluate existing structural conditions based upon inspection of the dam sections and abutment structures with the reservoir drawn down.

4. Evaluate the structure including the interior of the dam to determine the condition of the underside of the old section and the joint between the two sections.

5. Evaluate the presence and magnitude of the uplift due to the theoretical forces acting on the base during operation with the flashboards in place and the assumed maximum flow.

6. Perform dam stability analyses based on actual existing conditions and if necessary, make recommendations to improve the stability of the dam.

It is recommended that within 3 months of the final approval date of this report, all of the additional investigations should be initiated and within 18 months, appropriate remedial measures should be completed. In the interim, a plan for providing around-the-clock surveillance of the dam during periods of unusually heavy precipitation should be developed and implemented.

The following remedial measures should be completed within 12 months to correct existing deficiencies:

1. Replace the existing steel H-beam posts having the buckled webs with new sections having reinforced webs and flanges or with a more "compact" H-beam post.

2. The bent steel channel braces should be replaced and all channel braces should be reinforced by welding a like, or similar channel (legs welded to legs) to make up a "box", thereby increasing its resistance to bending and torsion.

3. All spalled areas or minor cracks in concrete should be repointed with a nonshrink epoxy cement.

4. Repair or replace:

   a. the concrete grouted rock slope protection at the toe of the right abutment wall which has experienced some minor erosion.

   b. the rock slope protection which is in a deteriorated condition elsewhere on the right downstream slope within the stilling basin.

5. Develop and implement a flood warning and emergency evacuation plan to alert the downstream residents in the event conditions occur which could result in failure of the dam.

6. A program for regular maintenance should be developed and implemented.

Submitted by: FLAHERTY GIAVARA ASSOCIATES, P.C.

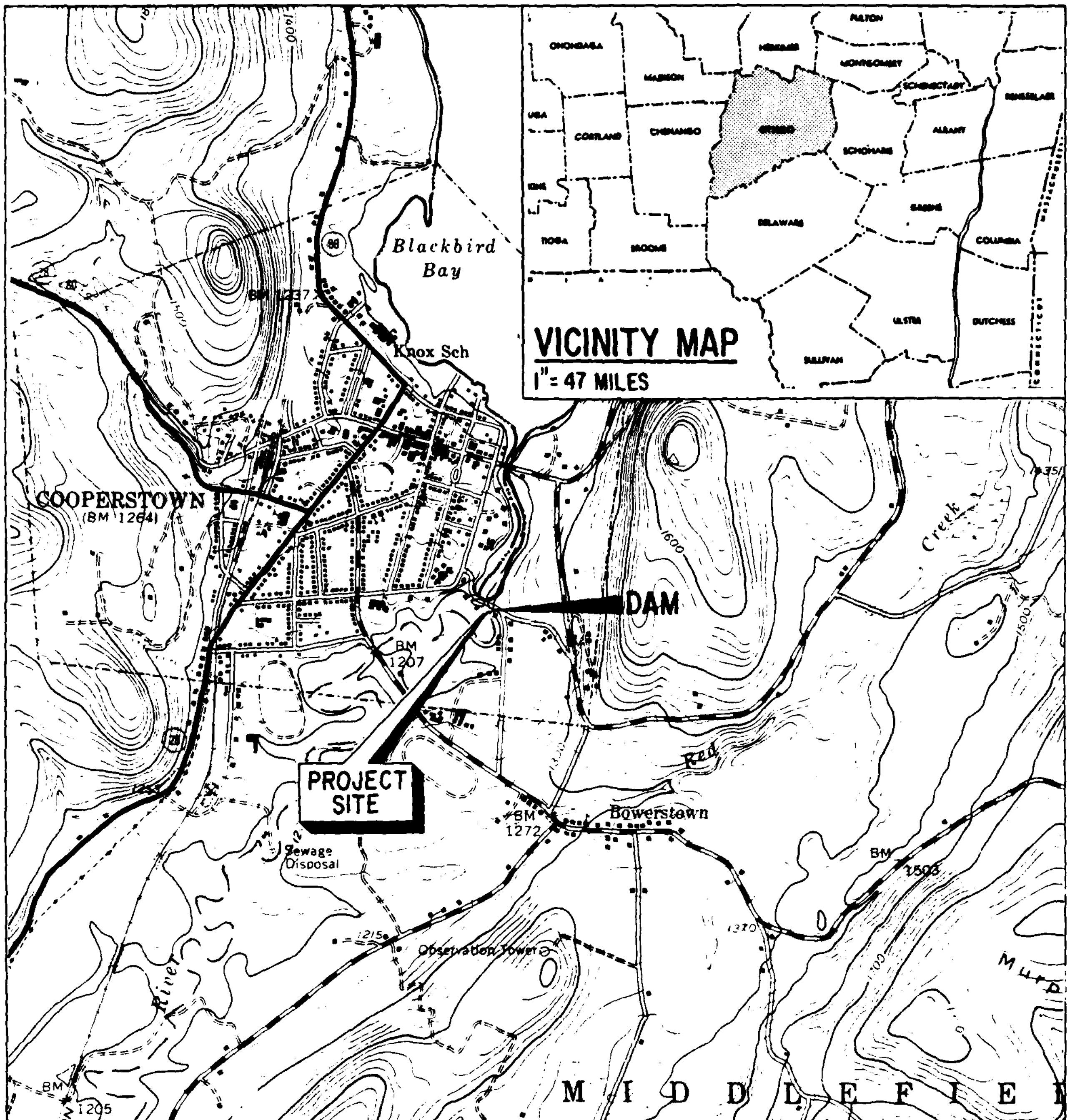
Hugh C. Flaherty, P.E. & L.S.
Chairman of the Board
New York License No. 58508

Richard E. Mayo LTC

Approved by: for Col. W. M. Smith, Jr.
New York District Engineer

Date: 17 SEPT 1981

PHOTO #1: Overview of
Otsego Lake Dam
Inventory No. NY 361



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SCALE IN FEET

LOCATION MAP

OTSEGO LAKE DAM
INVENTORY No. NY 361

SUSQUEHANNA RIVER BASIN
OTSEGO COUNTY
OTSEGO & MIDDLEFIELD, NEW YORK

FLAHERTY · GIAVARA ASSOCIATES, P.C.

NATIONAL DAM SAFETY PROGRAM
PHASE I INSPECTION REPORT
OTSEGO LAKE DAM
INVENTORY NO. NY 361
D.E.C. NO. 144A-918
SUSQUEHANNA RIVER BASIN
OTSEGO COUNTY, NEW YORK

SECTION 1 - PROJECT INFORMATION

1.1 GENERAL

a. Authority

The Phase I Inspection reported herein was authorized by the Department of the Army, New York District, Corps of Engineers, to fulfill the requirements of the National Dam Inspection Act, Public Law 92-367. Flaherty Giavara Associates, P.C. has been retained by the New York District to inspect and report on selected dams in the State of New York. Authorization and notice to proceed was issued to Flaherty Giavara Associates, P.C. under a letter of December 24, 1980 from W. M. Smith Jr., Colonel, Corps of Engineers. Contract No. DACW 51-81-C-0006 has been assigned by the Corps of Engineers for this work.

b. Purpose

Evaluation of the existing conditions of the subject dam to identify deficiencies and hazardous conditions, determine if they constitute hazards to life and property and recommend remedial measures where necessary.

1.2 DESCRIPTION OF PROJECT

a. Description of Dam and Appurtenances

The Otsego Lake Dam is a concrete buttress structure consisting of an overflow spillway weir with flashboards and an apron, and spans the entire width of the outlet channel. The original dam was a concrete gravity structure which was rehabilitated in 1955 with concrete counterforts, a reinforcement to the spillway, steel H-beam sections braced with channels (for flashboards), pile supports and a timber plank walkway across the overflow spillway. The new structural steel sections were embedded into the new concrete. A plan and sections showing these modifications are included in Appendix G. Concrete abutment or retaining walls extend upstream at both ends of the overflow spillway and tie into the abutments of a highway bridge located approximately 50 feet from the dam. The overall length of the dam is approximately 70

feet and the height is 11 feet. A stilling basin equal to the width of the overflow spillway, extends 200$\pm$ feet downstream of the dam. The discharge channel is lined with boulders and cobbles and narrows downstream of the dam. The side slopes on the left side of the discharge channel are approximately 3 to 4 horizontal to 1 vertical near the bottom and steepen to approximately 1.5 to 2.5 horizontal to 1 vertical for an approximate height of 9 feet. A flat paved parking area exists above the right slope of the discharge channel. The left slope is grass and tree-covered and the right slope is covered with rock slope protection and miscellaneous concrete rubble. The rock slope protection behind and immediately downstream of the right abutment is grouted with concrete.

b. Location

The Otsego Lake Dam is located off Mill Street within the Village of Cooperstown in the Towns of Otsego and Middlefield, New York. The dam is located at latitude north 42°-41.6' and longitude west 74°-55.3' on the U.S. Geological Survey 7.5 minute series topographic map "Cooperstown, New York". The Location Map on page i indicates where the dam is situated.

c. Size Classification

The maximum height of the dam is 11 feet and the maximum storage capacity is 39,800 acre-feet at the top of dam. Therefore, Otsego Lake Dam is classified as an "Intermediate" dam as defined by the Recommended Guidelines for Safety Inspection of Dams.

d. Hazard Classification

There are three roads, approximately 2 buildings, two railroad crossings and a sewage treatment plant within the dam failure flood hazard area. Therefore, the dam is in the "High" hazard category as defined by the Recommended Guidelines for Safety Inspection of Dams.

e. Ownership

The dam is owned by the Village of Cooperstown. The address and telephone number are as follows:

Owner

Contact: Mr. Edward M. Gaynor
Director of Public Works
Village of Cooperstown
22 Main Street
Cooperstown, New York 13326

Telephone: (607) 547-2411

f. Purpose

Originally, the dam was constructed to provide hydropower for milling purposes. This power source was later used to operate water pumps for the Village Water Works. Sometime thereafter, the sluiceway used for the power generation was filled in (see the Location Map on page i). Presently, the purposes of this dam are to maintain the water level of Otsego Lake for recreational use, to regulate the stream flow of the Susquehanna River and to provide a water supply for the Village of Cooperstown.

g. Design and Construction History

The original date of construction is not known; however, according to a report dated March 17, 1913 which is included in Appendix E, it was sometime prior to 1910 when the dam was repaired.

The only other post construction modifications noted were the reconstruction of the spillway and the installation of the flashboards and walkway in 1955 and the raising of of the height of the spillway abutments in 1964 or 1965.

h. Normal Operating Procedure

The only regular operating procedure for this dam includes the insertion or removal of the flashboards to regulate the level of Otsego Lake as well as the Susquehanna River. The normal water level in the lake is maintained by the crest elevation of the overflow spillway weir at approximately 1190.0 (NGVD).

1.3 PERTINENT DATA

a. Drainage Area (Square Miles) 75.00

b. Discharge at Dam Site (CFS)

- Top of Dam	
without flashboards	1428
with flashboards	758
- Top of Flashboards	
without flashboards	348
with flashboards	9
- Crest of Overflow Spillway	-

c. <u>Elevations (NGVD - estimated)</u>

- Top of Dam	1194.2
- Top of Flashboards	1191.6
- Low Flow Notch	1191.1
- Crest of Overflow Spillway	1190.0

d. <u>Reservoir Surface Area (Acres)</u>

- Top of Dam	4,272
- Top of Flashboards	4,158
- Crest of Overflow Spillway	4,088

e. <u>Storage (Acre-Feet)</u>

- Top of Dam	39,800
- Top of Flashboards	27,400
- Crest of Overflow Spillway	20,440

f. <u>Dam</u>

- Type: Concrete buttress with concrete abutments and wingwalls	
- Length (Feet)	69.5
- Upstream Slope (H:V)	vertical
- Downstream Slope (H:V)	-
- Crest Width (Feet)	2.0

g. <u>Overflow Spillway</u>

- Type: Concrete spillway with timber plank walkway	
- Length (Feet)	67.5
- Width (Feet)	12
- Side Slopes (H:V)	vertical
- Channel Bottom Slopes (Feet/Foot)	-

- Control: Adjustable flashboards

h. <u>Reservoir Drain</u>

No reservoir drain is known to exist.

SECTION 2 - ENGINEERING DATA

2.1 GEOTECHNICAL DATA

a. Geology

The Otsego Lake Dam is located at the headwaters of the Susquehanna River, approximately one half mile south of Otsego Lake, in the Village of Cooperstown, New York. It is situated in the Allegheny Plateau physiographic province of New York State. Local topography ranges from elevation 1200± in the floodplain downstream from the dam to elevation 1720 atop the hill northeast of the site. The elevation of Otsego Lake is 1190± (NGVD).

The underlying bedrock at the site is probably the Marcellus Formation, belonging to the Middle Devonian Hamilton group. This formation consists mostly of fine-bedded, dark grey to black, silty shales. The bedding of these deposits is quite even and laminated, splitting readily into thin sheets upon exposure.

The bedrock is probably overlain by a deposit of glacial till, a heterogeneous mixture of clay, silt, sand, gravel, and cobbles deposited beneath a glacier ice sheet, which once covered this region. Overlying the till is probably a deposit of lacustrine clays and/or fine-grained fluvial channel and overbank deposits of the present-day Susquehanna River.

b. Subsurface Conditions

There is no record of subsurface explorations at the site of the Otsego Lake Dam.

2.2 DESIGN RECORDS

No design records were obtained for this dam.

2.3 CONSTRUCTION RECORDS

This dam was constructed sometime prior to 1910, when the dam was repaired and it was reconstructed in 1955. A plan and sections showing these modifications are included in Appendix G. No other construction records were obtained.

2.4 OPERATION RECORDS

The level of Otsego Lake is recorded daily; however, no operation records were obtained for this dam.

2.5 EVALUATION OF DATA

The data presented herein was obtained primarily from the files of the New York State Department of Environmental Conservation (DEC) and also from the Village Water Works in Cooperstown. This information appears to be reliable and adequate for the purposes of a Phase I Inspection Report.

SECTION 3 - VISUAL INSPECTION

3.1 FINDINGS

a. General

A visual inspection of the Otsego Lake Dam was conducted on April 9, 1981. The weather was overcast and the temperature was 55$\pm$ $^{\circ}$F. At the time of the inspection, water was flowing in the overflow spillway (See Photos No. 5 and 7).

b. Dam

The dam is generally in good condition (See Photos No. 3, 4, 5, 6 and 7). There was no visible evidence of lateral movement, settlement, or cracking of the dam.

The following specific items were noted:

1. Seepage was noted along the earthen side of the left abutment wall near the base of the weir, approximately 6.5 feet below the top of the wall (See Photos No. 14 and 15). Minor seepage was noted along an old masonry and concrete wall.

2. Minor undermining of the right concrete abutment wall and of the grouted slope protection downstream of the abutment wall was noted (See Photo No. 13).

3. A separation crack has developed between the right abutment and the downstream retaining wall (See Photo No. 12).

4. The rock slope protection on the right slope of the downstream discharge channel within the stilling basin is in poor condition (See Photo No. 16). In some places it has been eroded away or displaced.

5. Some erosion of the left slope of the downstream discharge channel was observed (See Photo No. 17).

c. Overflow Spillway

The overflow spillway consists of a 67.5 foot long broad-crested weir and stilling basin (See Photo No. 8). The spillway has 1.6 foot high flashboards which are supported by concrete counterforts and steel H-beam posts braced with steel channel sections. The upstream flange of the steel H-beam posts has been reinforced by welding a 3/8 inch thick steel plate to the flange (See Photo No. 10). The upstream face and sides of the concrete counterforts (which are exposed to flow) have been "armored" with a

3/8 inch thick steel plate (See Photo No. 6).

The following specific items were observed:

1. The second and third steel H-beam posts from the right abutment are bent out of their planned vertical alignment.

2. The webs of the second, third, and fourth steel H-beam posts show evidence of buckling; i.e., the flanges are not parallel (See Photo No. 10).

3. The channel braces for the second and third steel H-beam posts are bent, approximately 6 inches from its vertical axis for the second post and 8 inches for the third post (See Photos No. 7 and 11).

4. The timber plank walkway is in good condition (See Photos No. 3 and 6).

d. <u>Downstream Channel</u>

The natural channel downstream of the dam is in good condition having a bed of of gravel, a width of 25± feet and a depth of 24 inches (See Photo No. 9).

e. <u>Reservoir - Storage Pool Area</u>

The reservoir area is bordered on the right by moderate to steep slopes, approximately 15 to 20 feet high, and on the left by very flat and gentle tree-covered slopes (See Photo No. 2). Sloughing at the base of the right slopes is apparently due to wave action, and a few trees have collapsed into the water; however, there is no significant possibility of major landslides into the storage pool affecting the safety of the dam.

3.2 EVALUATION OF OBSERVATIONS

The visual inspection revealed several deficiencies on this structure. The following observations were made:

a. Seepage was observed along the earthen side of the left abutment wall.

b. The second and third steel H-beam posts from the right abutment were bent out of their planned vertical alignment.

c. The webs of the second, third and fourth steel H-beam posts showed evidence of buckling.

d. The steel channel braces for the second and third steel H-beam posts were bent.

e. Minor undermining of the right concrete abutment wall and of the slope protection downstream from this wall was evident.

f. A separation crack was observed between the right abutment and the downstream retaining wall.

g. The rock slope protection on the right slope of the downstream discharge channel was eroded or displaced.

h. Some erosion of the left downstream channel was noted.

SECTION 4 - OPERATION AND MAINTENANCE PROCEDURES

4.1 PROCEDURES

The normal water surface level is maintained by the flashboards. The only operational procedure in effect at this time is the insertion or removal of the flashboards to regulate the level of Otsego Lake as well as that of the Susquehanna River.

4.2 MAINTENANCE OF DAM

There was no evidence of any routine maintenance operations at the Otsego Lake Dam.

4.3 WARNING SYSTEM

No warning system is presently in effect.

4.4 EVALUATION

Presently, only a few maintenance procedures are in effect for this dam. Therefore, a program for regular maintenance should be developed and implemented.

SECTION 5 - HYDROLOGIC/HYDRAULIC

5.1 DRAINAGE AREA CHARACTERISTICS

The dam is located in the Towns of Otsego and Middlefield, approximately one half mile downstream of Otsego Lake in the Village of Cooperstown. Otsego Lake is at the headwaters to the Susquehanna River, approximately twenty-two miles upstream of Oneonta, New York.

The watershed (shown on the Watershed Map on Page C-5 in Appendix C) consists of 48,000 acres (75.00 square miles) of hilly uplands with typical slopes of 10 percent. Land within the watershed is primarily agricultural with extensive open fields.

The watercourse upon which the reservoir is located, is the Susquehanna River, having a typical flow width of 25 feet and a typical flow depth of 24 inches.

5.2 ANALYSIS CRITERIA

The purpose of the hydrologic/hydraulic analysis is to evaluate the spillway capacity and the potential for overtopping. The analysis of the spillway capacity of the dam and storage of the reservoir was performed using the Corps of Engineers' HEC-1 Computer Model - Dam Safety Version. The procedure included determining the Probable Maximum Flood (PMF) runoff from the watershed and routing the inflow hydrograph through the impoundment to determine the outflow hydrograph. The unit hydrograph was defined by the Snyder Synthetic Unit Hydrograph method, and the Modified Puls routing procedure was incorporated.

The initial rainfall loss was assumed to be 1.0 inches, and the uniform rainfall loss was assumed to be 0.1 inches per hour. In accordance with recommended guidelines of the Corps of Engineers, the Probable Maximum Precipitation (PMP) was 19.3 inches (24 hour duration, 200 square mile area).

The drainage area of Otsego Lake was divided up into seven subwatershed areas for the HEC-1 DB computer model. Runoff unit hydrographs and peak lag times were developed for each subwatershed and combined before being routed through the dam. Due to its large ratio of surface area to watershed area, the impoundment was treated as a separate subwatershed and as being impervious in the analysis. Other impervious surfaces in the watershed were estimated from the USGS 7.5 minutes series topographic maps.

The dam is located approximately 0.5 miles downstream of Otsego Lake and is connected to the lake via a 100± foot wide channel. Due to the effect of flow restriction, it was nec-

essary to perform a backwater analysis of the channel under PMF flow conditions to determine the resulting additional storage in the lake. The results of this analysis are included in Appendix C.

Two analyses were conducted for both the full PMF and for several fractional PMF conditions; one with the spillway flashboards in place and the other without them in place. The PMF inflow of 81,113 CFS was routed through the reservoir and the peak outflow was determined to be 11,660 CFS with the flashboards and 12,831 CFS without them.

5.3 SPILLWAY CAPACITY

The total outlet capacity is the discharge from the overflow spillway. There were seven sets of removable flashboards in place at the time of the inspection; six sets were 1.6 feet high by 8.9 feet long and one was 1.6 feet by 8.6 feet. The length of the overflow section of the weir is 67.5 feet.

The stage discharge data for the overflow spillway weir with the flashboards in place was calculated for the stages tabulated below:

Stage (Feet)	Discharge Capacity (CFS)	Element of Structure
1191.1	0	Low-Flow Notch
1191.6	9	Top of Flashboards
1192.0	58	--
1192.5	166	--
1192.8	248	Bottom of Walkway
1192.9	307	Top of Walkway
1193.0	324	--
1193.1	351	Top of H-Beam Posts
1193.5	482	--
1194.0	624	--
1194.2	758	Top of Dam

The total spillway capacity at the top of dam is 758 CFS.

The stage discharge data for the overflow spillway weir without the flashboards in place was calculated for the stages tabulated below:

Stage (Feet)	Discharge Capacity (CFS)	Element of Structure
1190.0	0	Crest of Overflow Spillway
1190.5	25	--
1191.0	172	--

1191.5	316	--
1192.0	486	--
1192.5	679	--
1192.8	732	Bottom of Walkway
1192.9	783	Top of Walkway
1193.0	813	--
1193.1	858	Top of H-Beam Posts
1193.5	1053	--
1194.0	1317	--
1194.2	1428	Top of Dam

The total spillway capacity at the top of the dam is 1428 CFS.

5.4 RESERVOIR CAPACITY

The storage capacity of the reservoir was calculated for the stages indicated below:

Stage (Feet)	Storage (Acre-Feet)	Storage (Inches of Runoff)
1190.0	20,440	5.11
1191.6	27,440	6.86
1194.2	39,800	9.95

5.5 FLOODS OF RECORD

No precise data regarding flood levels was obtained for this dam; however, it was estimated that during one period of high spillway discharge (since 1955), the water level rose to 1± foot over the timber plank walkway (elevation 1193.9± NGVD). This would be equal to a flow of 633 CFS with the flashboards in place and 1263 CFS without them.

5.6 OVERTOPPING POTENTIAL

The results of the HEC-1 DB computer analyses indicate that the crest of the dam is overtopped by all storms exceeding 29 percent of the PMF event with the flashboards in place and 30 percent without them in place. The PMF discharge rate of 11,660 cubic feet per second (CFS) with the flashboards in place would occur at a peak flood stage of 1207.4 feet, which is 13.2 feet above the crest of the dam. Without the flashboards in place, the PMF discharge rate of 12,831 CFS peaks at elevation 1206.9 which is 12.7 feet above the crest of the dam.

The results of the analyses are tabulated on the following page:

- With the flashboards in place:

Flood Condition	Peak Inflow (CFS)	Peak Outflow (CFS)	Maximum Stage Elevation (NGVD)
0.5 PMF	40,557	3,317	1198.9
1.0 PMF	81,113	11,660	1207.4

- Without the flashboards in place:

Flood Condition	Peak Inflow (CFS)	Peak Outflow (CFS)	Maximum Stage Elevation (NGVD)
0.5 PMF	40,557	4,092	1197.9
1.0 PMF	81,113	12,831	1206.9

5.7 EVALUATION

Using the Corps of Engineers' screening criteria for the initial review of spillway adequacy, it has been determined that the capacity of the spillway is not adequate to pass either the full PMF or one half the PMF, with or without the flashboards in place.

The extent of overtopping is summarized in the table below:

Flashboards	Ratio of PMF Passed Safely (Percent)	Maximum Depth Over Dam (Feet)	Duration Over Top of Dam (Hours)
With	29	13.2	18.5
Without	30	12.7	18.5

It is estimated that breaching of the dam as a result of overtopping and instability of the overflow spillway, would cause water surface levels downstream to reach depths which would pose significant danger to residents. Therefore, the spillway is adjudged to be seriously inadequate and the dam is assessed as unsafe, nonemergency.

SECTION 6 - STRUCTURAL STABILITY

6.1 EVALUATION OF STRUCTURAL STABILITY

a. Visual Observations

Except for the bent steel H-beam posts with the buckled webs and the bent steel channel braces, both of which support the flashboards, there was no visible evidence of settlement, lateral movement, or other signs of overall structural instability of the dam during the site examination. Based on the conditions that were observed, there is no reason to question the static structural stability of the dam.

b. Design and Construction Data

There is no construction data to confirm the nature and physical properties of the foundation bearing materials. The apparent satisfactory performance of the dam indicates that there is some safety margin with respect to stability under static loading conditions and that the seepage beneath the dam is not a significant problem.

c. Operating Records

No operating records were obtained for Otsego Lake Dam.

d. Post Construction Changes

The only post construction changes noted were the reconstruction of the spillway and the installation of the flashboards and timber plank walkway in 1955 and the raising of the height of the spillway abutments in 1964 or 1965.

6.2 STRUCTURAL STABILITY ANALYSIS

Design drawings available for review show a plan and cross sections for the dam and overflow spillway but do not include information on the properties of the dam and its foundation materials. As part of the present study, stability evaluations have been performed for the overflow spillway sections. Actual properties of the construction materials and foundations were not determined as part of this study; therefore, where information on properties was necessary for computations but was lacking, assumptions felt to be practical were made. The stability computations assume a composite structural cross section based on dimensions indicated by the drawing included in Appendix G of this report.

The stability analysis is presented in Appendix D. The results of the stability computations are summarized in the

following table:

Loading Condition (Spillway Section)	[1]Factors of Safety Over-turning	[2]Sliding	[3]Location of Resultant Passing Through Base
1. Normal operating condition: water 3 feet above existing gravity section (flashboards in place)	5.60	1.75	0.60b
2. Maximum operating condition: water level at top of dam (4.2 feet above spillway crest)	3.94	1.40	0.55b
3. 0.5 PMF condition (with flashboards): water level at El. 1198.9 (7.3 feet above flashboards)	1.56	0.70	0.27b
4. 0.5 PMF condition (without flashboards): water level at El. 1197.9 (7.9 feet above spillway crest)	1.65	0.84	0.29b
5. Ice loading condition: 5.0 Kips per foot acting at top of flashboards	0.93	0.65	*

[1]These factors of safety indicate the ratio of moments resisting overturning to those moments causing overturning and the ratio of forces resisting sliding to those causing sliding.

[2]As determined applying the friction-shear method.

[3]Indicated in terms of the base dimension of the dam (b), measured from the toe of the dam.

*Location of the resultant falls outside of

the spillway width.

The analysis indicates that the combined sections are stable against overturning for all normal operating conditions to and including the maximum height of water (equal to the top of dam). Instability is indicated when the sections are subjected to forces possible under ice loading conditions and both 0.5 PMF loading conditions.

For nearly all conditions of loading, the factors of safety against sliding were very low; this in part was due to the assumed active soil pressure upstream and a typical coefficient of sliding friction.

Tension stresses produced in the concrete base section due to uplift forces are negligible compared with the mass of the base and reinforcing provided.

The discussed analysis applies to the composite sections of the dam acting monolithically and in structurally good condition. The field observations indicate some damaged structural elements and varying degrees of surface deterioration. Although this analysis indicates generally satisfactory stability under normal operating conditions, severe loading conditions, such as ice or 0.5 PMF, result in unsatisfactory stability. Therefore, a more detailed structural stability analysis is necessary, taking into account the actual conditions and composition of the dam. Remedial measures deemed appropriate as a result of the stability investigation should then be accomplished.

The Otsego Lake Dam is located in Seismic Zone 1 and in accordance with recommended Phase I guidelines does not require seismic analysis.

SECTION 7 - ASSESSMENT/RECOMMENDATIONS

7.1 ASSESSMENT

a. Condition

On the basis of the visual examination, there were no signs of impending structural failure or other conditions which would warrant urgent remedial action, but several deficiencies were noted.

b. Adequacy of Information

The evaluation of this dam is based primarily on visual examination, reference to the 1953 plan, approximate hydraulic and hydrologic computations, and application of engineering judgement. No information was available on the nature of the foundation soils. The available information that was obtained is adequate for the purposes of a Phase I assessment.

c. Need for Additional Investigations

It is recommended that the following additional investigations be performed by a registered professional engineer engaged by the owner:

1. Conduct a detailed hydrologic and hydraulic analysis to more accurately determine the site specific characteristics of the watershed.

2. Systematically investigate the seepage behind the left abutment wall and monitor it on a continuing basis, especially during periods of high flow. If the rate and extent of the seepage progressively increase, assess the causes of the seepage and recommend remedial measures.

3. Evaluate the existing structural conditions based upon inspection of the dam sections and abutment structures with the reservoir drawn down.

4. Evaluate the structure including the interior of the dam to determine the condition of the underside of the old section and the joint between the two sections.

5. Evaluate the presence and magnitude of the uplift due to the theoretical forces acting on the base during operation with the flashboards in place and the assumed maximum flow.

6. Perform dam stability analyses based on the actual existing conditions and if necessary, make recommendations to improve the stability of the dam.

d. Urgency

It is recommended that within 3 months of the final approval date of this report, all of the additional investigations should be initiated and within 18 months, appropriate remedial measures should be completed. In the interim, a plan for providing around-the-clock surveillance of the dam during periods of unusually heavy precipitation should be developed and implemented. The recommended corrective measures presented in Section 7.2 should be completed within 12 months of final approval.

7.2 RECOMMENDED MEASURES

It is considered important that the following items be accomplished in addition to any items required as a result of the additional investigations recommended in Section 7.1c:

a. Replace the existing steel H-beam posts having the buckled webs with new sections having reinforced webs and flanges or with a more "compact" H-beam post.

b. The bent steel channel braces should be replaced and all channel braces should be reinforced by welding a like, or similar channel (legs welded to legs) to make up a "box", thereby increasing its resistance to bending and torsion.

c. All spalled areas or minor cracks in concrete should be repointed with a nonshrink epoxy cement.

d. Repair or replace:

1. the concrete grouted rock slope protection at the toe of the right abutment wall which has experienced some minor erosion.

2. the rock slope protection which is in a deteriorated condition elsewhere on the right downstream slope within the stilling basin.

e. Develop and implement a flood warning and emergency evacuation plan to alert downstream residents in the event conditions occur which could result in the failure of the dam.

f. A program for regular maintenance should be developed and implemented.

APPENDIX A

PHOTOGRAPHS

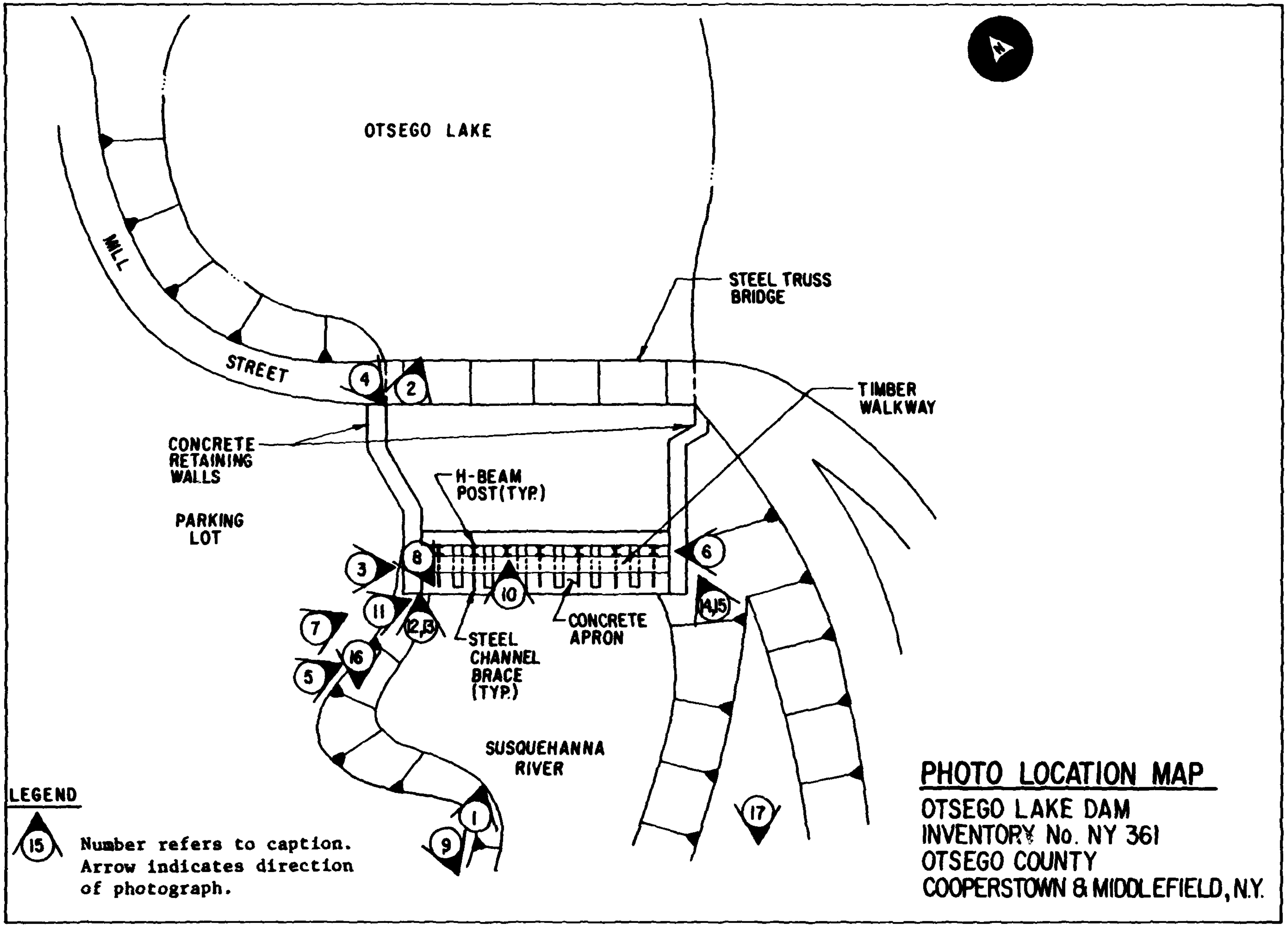


PHOTO LOCATION MAP
OTSEGO LAKE DAM
INVENTORY No. NY 361
OTSEGO COUNTY
COOPERSTOWN & MIDDLEFIELD, N.Y.

PHOTO #2: Approach channel from Otsego Lake

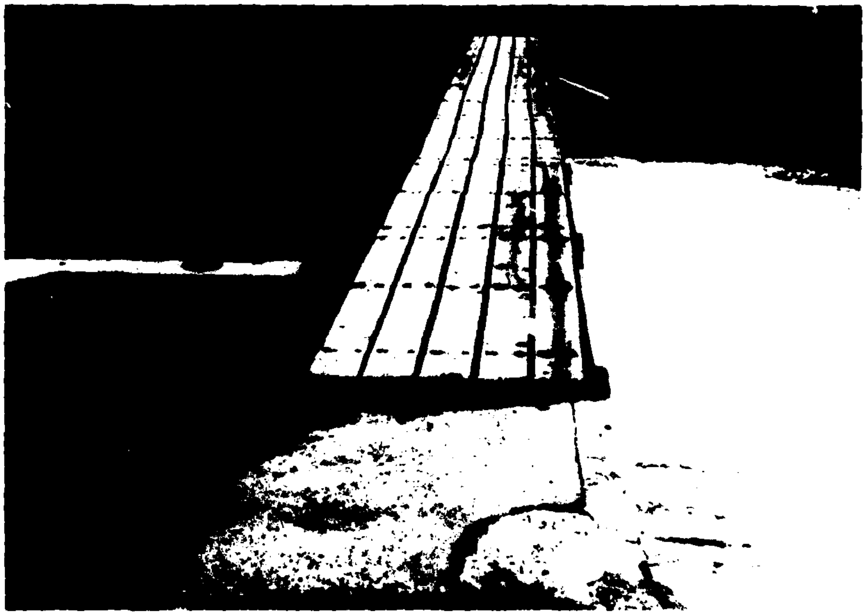


PHOTO #3: Crest of dam looking toward left abutment

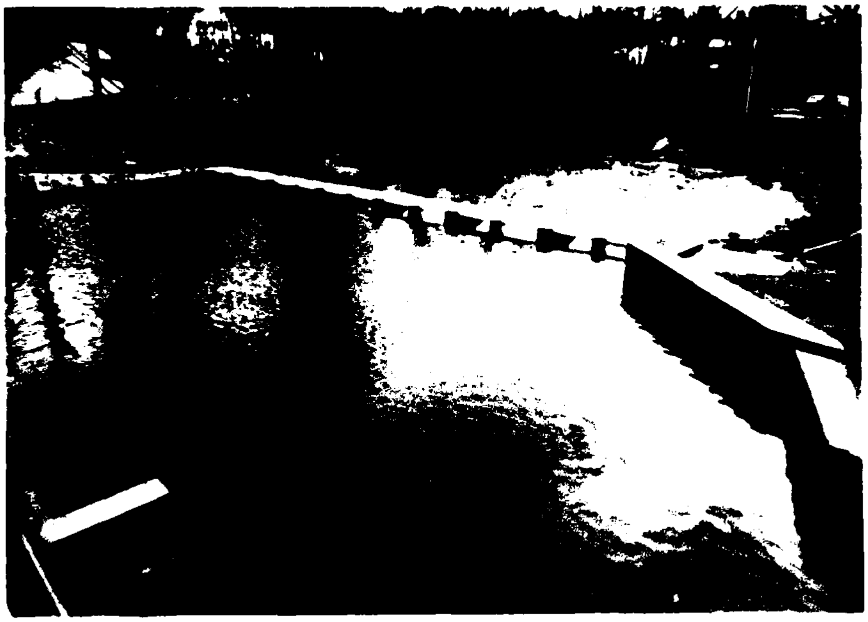


PHOTO #4: Overview of upstream face of dam

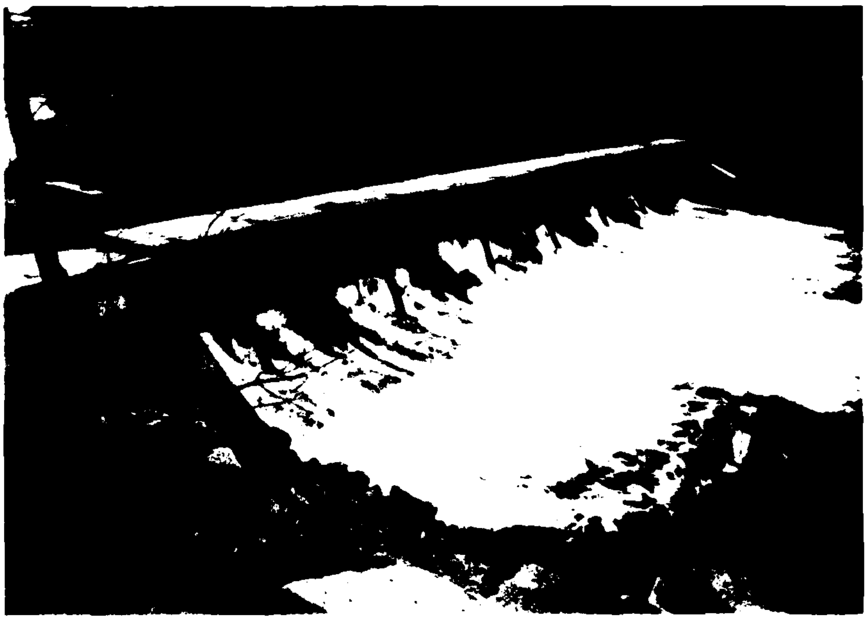


PHOTO #5: Overview of downstream face of dam

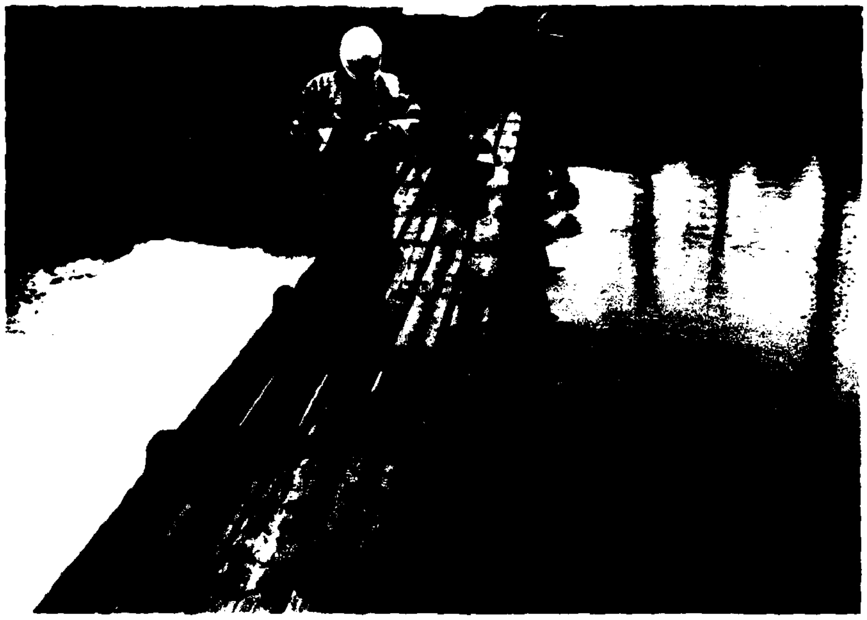


PHOTO #6: Upstream face of dam

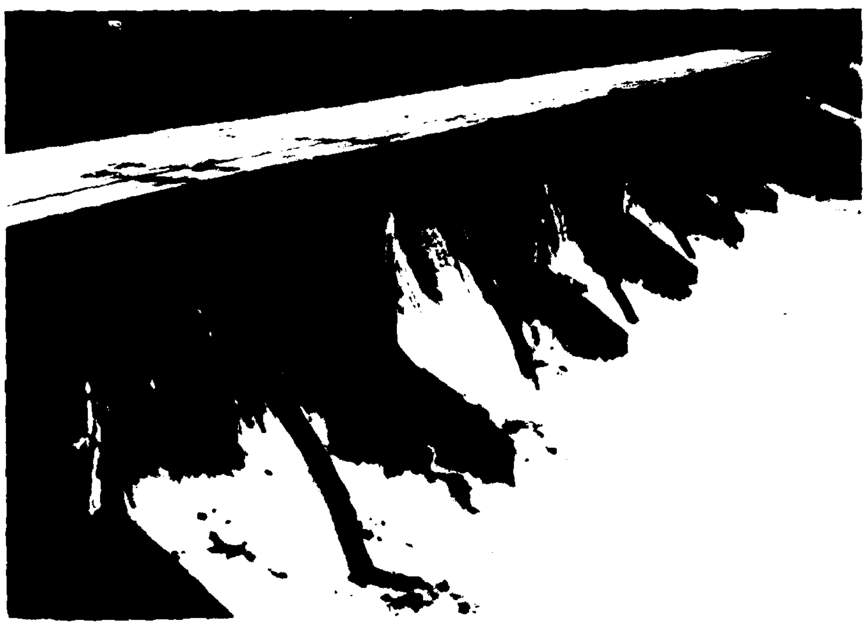


PHOTO #7: Downstream face of dam

PHOTO #8: Stilling basin

PHOTO #9: Downstream channel conditions

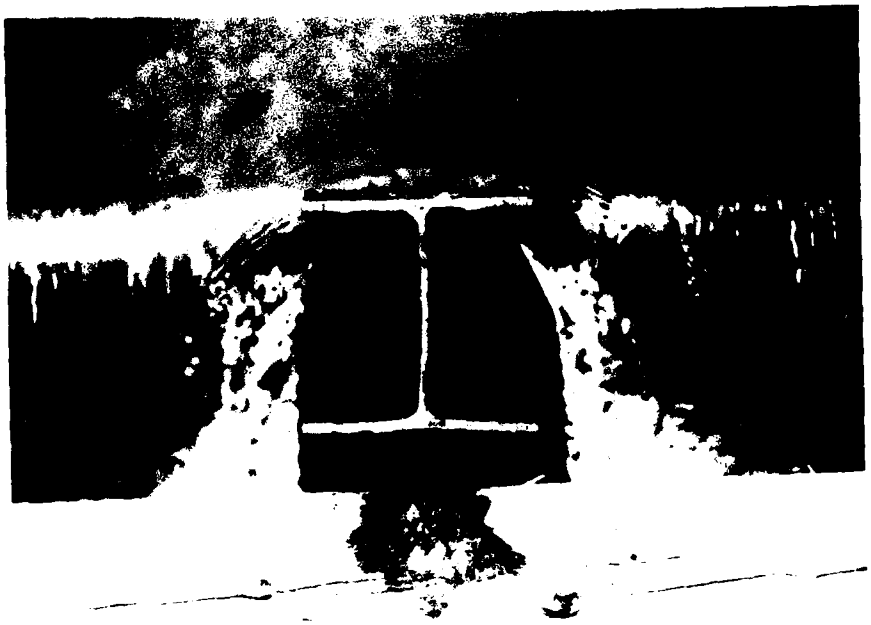


PHOTO #10: Buckled web of steel H-beam post for support of flashboards

PHOTO #11: Bent steel channel braces for H-beam post

PHOTO #12: Crack between right concrete abutment and retaining wall

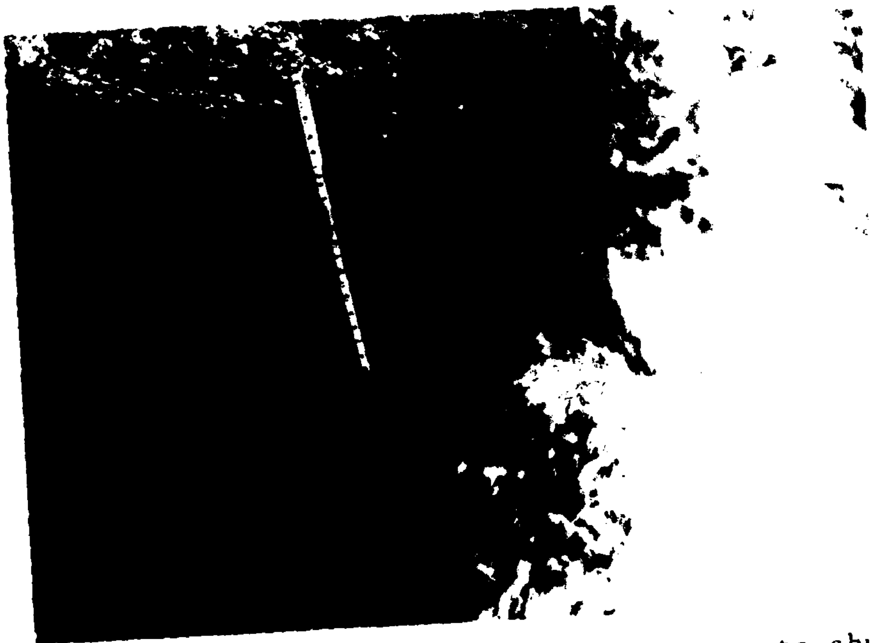


PHOTO #13: Undermining of right concrete abutment

PHOTO #14: Seepage at left concrete abutment

PHOTO #15: Close-up of seepage

PHOTO #16: Right downstream channel side slope

PHOTO #17: Erosion of left downstream channel side slope

APPENDIX B

VISUAL INSPECTION CHECKLIST

VISUAL INSPECTION CHECKLIST

1) Basic Data

a. General

Name of Dam Otsego Lake Dam

Fed. I.D. # NY 361 DEC Dam No. 144A-918

River Basin Susquehanna

Location: Town Otsego and Middlefield County Otsego

Stream Name Susquehanna River

Tributary of Chesapeake Bay

Latitude (N) 42°-41.6' Longitude (W) 74°-55.3'

Type of Dam Concrete buttress

Hazard Category High

Date(s) of Inspection April 9, 1981

Weather Conditions Overcast, 60° ± F.

Reservoir Level at Time of Inspection Elevation 1190.2 ± (NGVD)

b. Inspection Personnel T. L. Ward & R. A. Criscuolo of Flaherty Giavara Associates, P.C.

J. J. Rixner & C. W. Eller of Haley & Aldrich, Inc.; B. McL. Whittingham of Salmon Associates

c. Persons Contacted (Including Address & Phone No.)

Mr. Edward M. Gaynor	Mr. Carl St. John
Director of Public Works Village of Cooperstown	Filtration Plant Village of Cooperstown Water Works
22 Main Street Cooperstown, New York 13326	Mill Street Cooperstown, New York 13326
(607) 547-2411	

d. History:

Date Constructed Prior to 1910 Date(s) Reconstructed 1955

Designer Unknown

Constructed By Unknown

Owner Village of Cooperstown

2) Embankment

a. Characteristics

(1) Embankment Material Not applicable

(2) Cutoff Type None

(3) Impervious Core None

(4) Internal Drainage System None observed

(5) Miscellaneous No comments

b. Crest

(1) Vertical Alignment Good

(2) Horizontal Alignment Good

(3) Surface Cracks None observed

(4) Miscellaneous No comments

c. Upstream Slope

(1) Slope (Estimate - V:H) Vertical

(2) Undesirable Growth or Debris, Animal Burrows Not applicable

(3) Sloughing, Subsidence or Depressions Not Applicable

(4) Slope Protection Not applicable

(5) Surface Cracks or Movement at Toe None evident

d. Downstream Slope

(1) Slope (Estimate - V:H) Not applicable

(2) Undesirable Growth or Debris, Animal Burrows Not applicable

(3) Sloughing, Subsidence or Depressions Not applicable

(4) Surface Cracks or Movement at Toe None observed

(5) Seepage Minor seepage was noted along the old masonry and concrete wall; some seepage observed at base of spillway weir

(6) External Drainage System (Ditches, Trenches, Blanket)

(7) Condition Around Outlet Structure Concrete apron

(8) Seepage Beyond Toe None evident

e. Abutments - Embankment Contact

Left: good condition

Right: good condition

(1) **Erosion at Contact** Some surface erosion along wall at overflow spillway weir

(2) **Seepage Along Contact** Seepage was noted along the earthen side of the left abutment wall

3) <u>Drainage System</u>

a. **Description of System** Broad-crested concrete weir and concrete discharge apron leading to the natural streambed

b. **Condition of System** Good

c. **Discharge from Drainage System** Concrete discharge apron dropping approximately 5 feet from weir to streambed

4) <u>Instrumentation</u> **(Monumentation/Surveys, Observation Wells, Weirs, Peizometers, Etc.)**

None observed

5) Reservoir

a. Slopes Moderate to steep slopes on the left, gentle wooded slopes on the right and lakeside buildings border the impoundment

b. Sedimentation Possible accumulation of sediment behind the dam

c. Unusual Conditions Which Affect Dam Usually large watershed and impoundment

6) Area Downstream of Dam

a. Downstream Hazard (No. of Homes, Highways, etc.) Approximately 2 buildings, two railroad crossings, a sewage treatment plant and three roads are are within the dam failure flood hazard area

b. Seepage, Unusual Growth None observed

c. Evidence of Movement Beyond Toe of Dam None evident

d. Condition of Downstream Channel Good; fine to coarse gravel streambed material with some cobbles; no obstructions

7) Spillway(s) (Including Discharge Conveyance Channel)

Overflow spillway and discharge channel

a. General Overflow spillway and discharge channel handle all flows

b. Condition of Principal Spillway Good; however, a separation crack has developed between the right concrete abutment and downstream retaining wall; minor undermining of the right concrete abutment and of the slope protection downstream from this wall was evident.

c. Condition of Emergency Spillway Not applicable ______________________________

____

____

____

____

d. Condition of Discharge Conveyance Channel Good condition, presently stable

____

____

____

____

8) Reservoir Drain/Outlet

Type: Pipe None Conduit None Other None

Material: Concrete ________ Metal ________ Other ________

Size: ________________ Length ________________

Invert Elevations: Entrance ________________ Exit ________________

Physical Condition (Describe): Unobservable ________

Material: ________________________________

Joints: ________________ Alignment ________________

Structural Integrity: ________________________________

____

Hydraulic Capability: ________________________________

____

Means of Control: Gate ________ Valve ________ Uncontrolled ________

Operation: Operable ________ Inoperable ________ Uncontrolled ________

Present Condition (Describe): ________________________________

____

____

____

9) Structural

a. Concrete Surfaces Concrete of the overflow spillway is in good condition with only minor spalling

b. Structural Cracking No evidence of any structural cracks in concrete; however, some H-beam posts showed evidence of web buckling and some are bent out of their vertical alignment; channel braces supporting H-beam posts have buckled

c. Movement - Horizontal & Vertical Alignment (Settlement) Apparently, some settlement has occurred at the right concrete abutment as evidenced by the separation crack described in 7) b.

d. Junctions with Abutments or Embankments Good condition; some seepage was noted along the earthen side of the left abutment

e. Drains - Foundation, Joint, Face None evident

f. Water Passages, Conduits, Sluices Flashboards partially removed between H-beam posts 2 and 3 from right abutment to form low-flow match

g. Seepage or Leakage Described in 2) d. (5)

h. **Joints - Construction, etc.** Good condition; but slight gap at the right abutment and downstream retaining wall

i. **Foundation** Inaccessible

j. **Abutments** See 9) d. above

k. **Control Gates** None observed

l. **Approach & Outlet Channels** Not Applicable

m. **Energy Dissipators (Plunge Pool, etc.)** Overflow spillway discharges to concrete apron with circular section

n. **Intake Structures** Not applicable

o. **Stability** Appears to be stable

p. **Miscellaneous** No comments

10) Appurtenant Structures (Power House, Lock, Gatehouse, Other)

a. Description and Condition None observed

APPENDIX C

HYDROLOGIC/HYDRAULIC ENGINEERING DATA AND COMPUTATIONS

CHECK LIST FOR DAMS
HYDROLOGIC AND HYDRAULIC
ENGINEERING DATA

AREA-CAPACITY DATA:

	Elevation (ft.)	Surface Area (acres)	Storage Capacity (acre-ft.)
1) Top of Dam	1194.2	4,272	39,800
2) Design High Water (Max. Design Pool)	--	--	--
3) Emergency Spillway Crest	--	--	--
4) Pool Level with Flashboards	1191.6	4,158	27,440
5) Overflow Spillway Crest	1190.0	4,088	20,440

DISCHARGES: (without flashboards)

	Volume (cfs)
1) Average Daily	Unknown
2) Overflow Spillway @ Maximum High Water (Top of Dam)	1428
3) Emergency Spillway @ Design High Water	--
4) Principal Spillway @ Emergency Spillway Crest	--
5) Low Level Outlet @ Principal Spillway Crest	--
6) Total (of all facilities) @ Maximum High Water	1428
7) Maximum Known Flood	Unknown
8) At Time of Inspection	35 ±

CREST: ELEVATION: 1194.2 (NGVD)

Type Concrete buttress structure

Width 2 feet Length 69.5 feet

Spillover Concrete overflow spillway weir

Location Center of dam

SPILLWAY:

OVERFLOW		EMERGENCY
1190.0 (NGVD)	Elevation	
Broad-crested weir	Type	
12 feet	Width	
	Type of Control	
Weir	Uncontrolled	
--	Controlled	
1.6 foot high flashboards	Type: (Flashboards; gate)	
7 sets	Number	
67.5 foot weir/1.6 feet high	Size/Length	
Concrete	Invert Material	
Continuously	Anticipated Length of Operating Service	
Unknown	Chute Length	
3.0 feet	Height Between Spillway Crest & Approach Channel Invert (Weir Flow)	

Type: ______________________________

Location: ______________________________

Records:

Date Unknown

Max. Reading Unknown

FLOOD WATER CONTROL SYSTEM:

Warning System None in effect

Method of Controlled Releases (mechanisms) None

DRAINAGE AREA: 48,000 acres = 75.00 square miles

DRAINAGE BASIN RUNOFF CHARACTERISTICS:

Land Use - Type Agricultural

Terrain - Relief Hilly uplands

Surface - Soil Glacial till

Runoff Potential (existing or planned extensive alterations to existing surface or subsurface conditions)

Primarily agricultural with extensive open fields; glacial till soils; average watershed slope is 10 ± percent, some residential homes (Cooperstown) and roadways; some future development around lake possible

Potential Sedimentation problem areas (natural or man-made; present or future)

Possible surface erosion from agricultural fields during fallow periods

Potential Backwater problem areas for levels at maximum storage capacity including surcharge storage:

Flooding of some lakeside buildings is possible

Dikes - Floodwalls (overflow & non-overflow) - Low reaches along the reservoir perimeter:

Location: None observed

Elevation:

Reservoir:

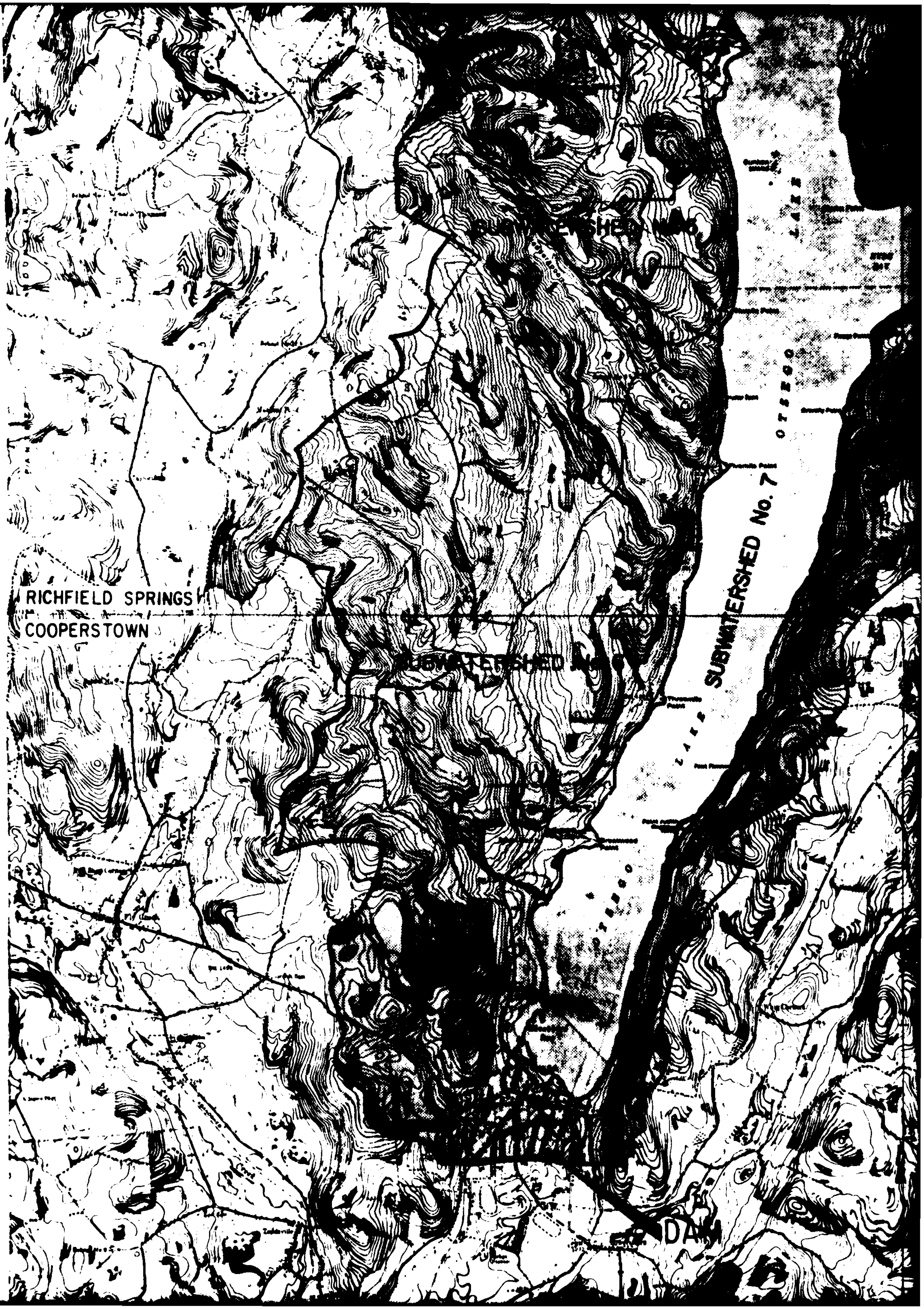
Length @ Maximum Pool 44,400 ± feet = 8.4 miles (Miles)

Length of Shoreline (@ Spillway Crest) 20.0 miles (Miles)

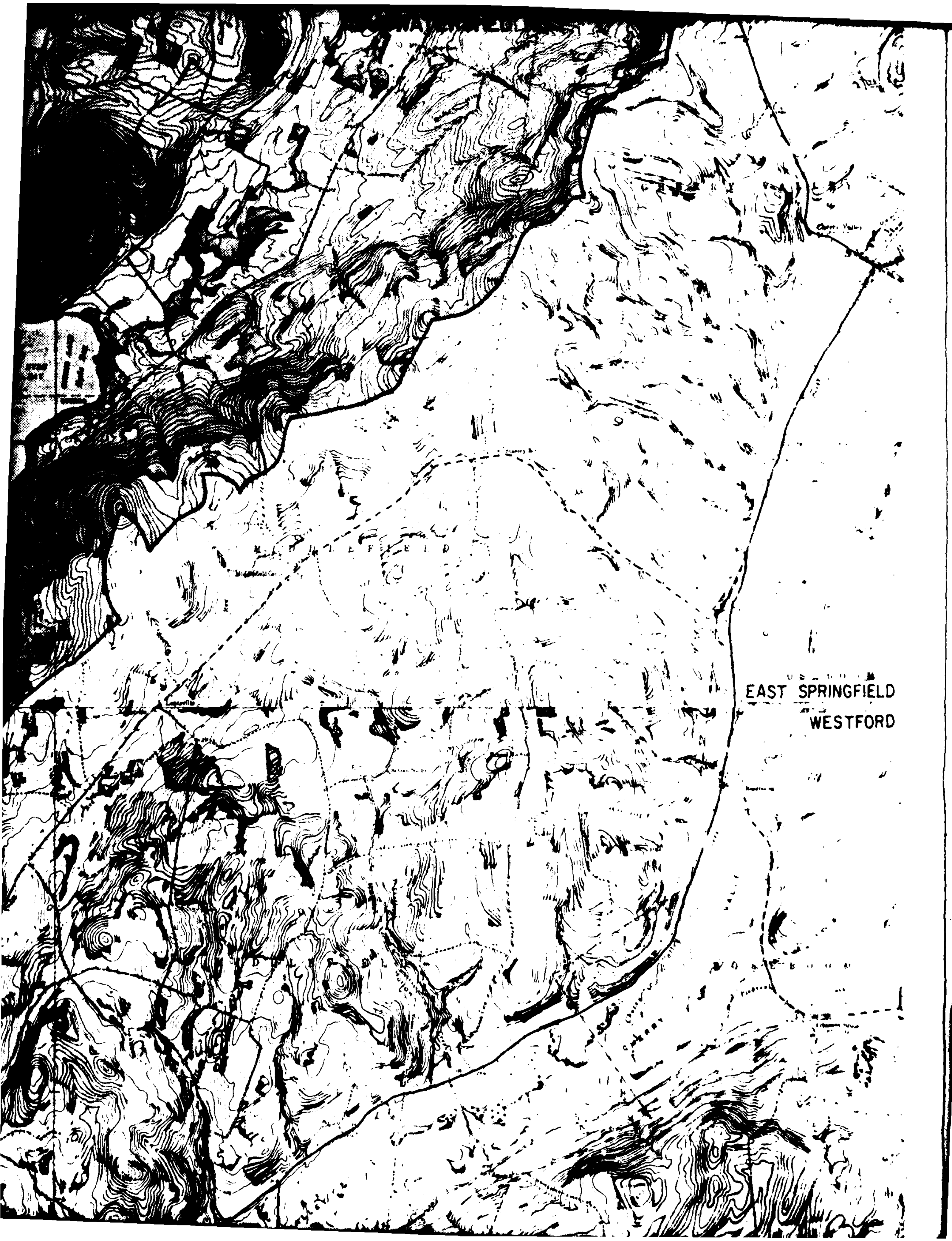

JORDANVILLE
RICHFIELD SPRINGS
SUBWATERSHED NO. 3
Young Lake
Allen Lake
CANADARAGO LAKE


VAN HORNESVILLE
EAST SPRINGFIELD
SUBWATERSHED NO. 1

3

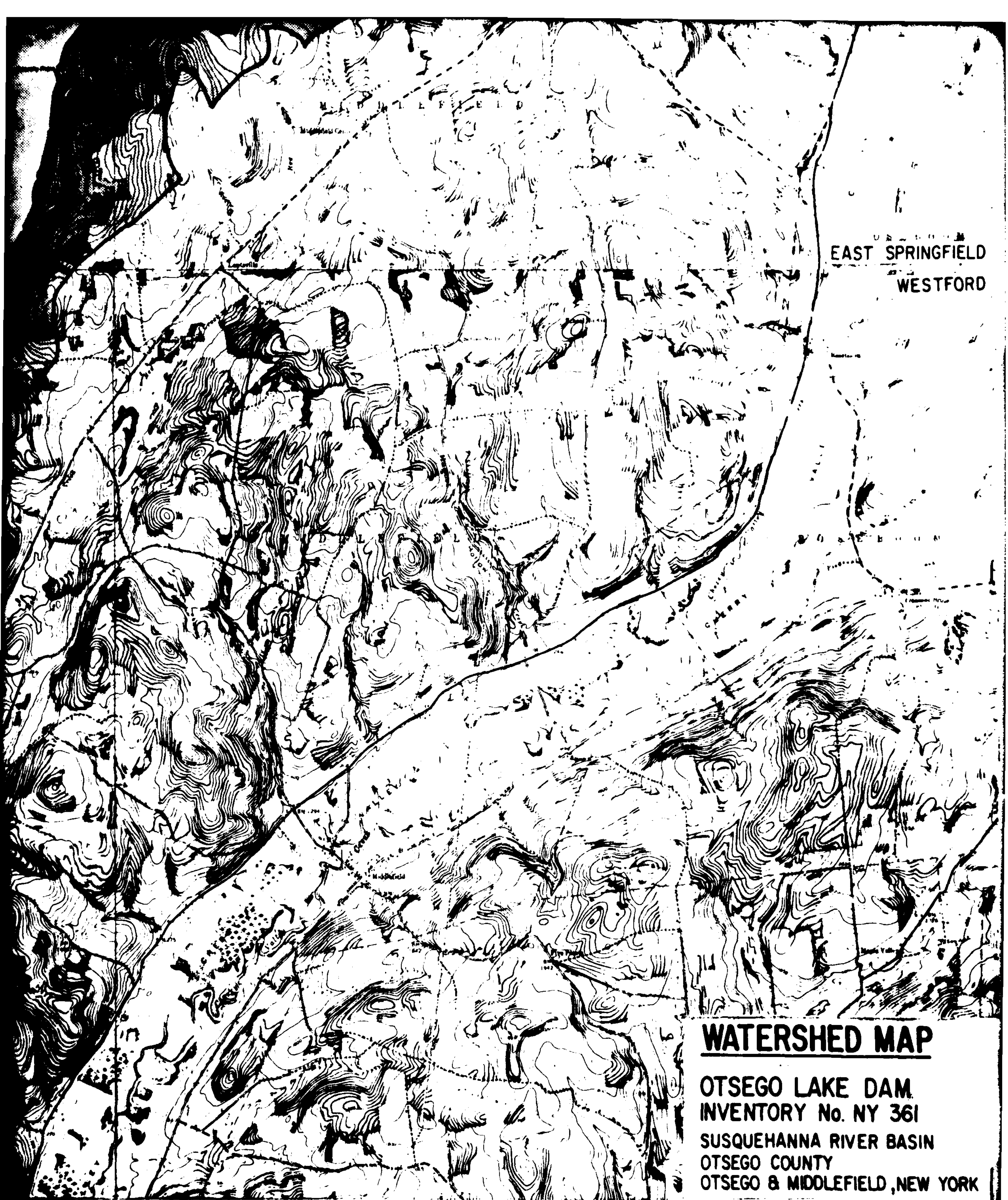


C-5


EAST SPRINGFIELD
WESTFORD


RICHFIELD SPRINGS
COOPERSTOWN
SUBWATERSHED No. 7
DAM
N
0
4000
8000
SCALE IN FEET

C-5



FLAHERTY · GIAVARA ASSOCIATES, P.C.

CALCULATIONS

WATERSHED DATA FOR HEC 1 SNYDER HYDROGRAPH

Sub Watershed No. 1

$$T_p = C_t (L\,L_c)^{0.3}$$

$L = 7.89$ miles
$L_c = 1.97$ miles
$C_t = 2.0$ for average slopes

$$T_p = 2.0(7.89 \times 1.97)^{0.3} = 4.56 \text{ Hours}$$

$$t_r = \frac{t_p}{5.5} = \frac{4.56}{5.5} = 0.8 \qquad \text{USE } t_R = 1.0$$

$$t_{pr} = t_p + 0.25\,(t_R - t_r) = 4.56 + 0.25\,(1.0 - 0.8) = 4.61 \text{ Hours}$$

SET $C_p = 0.63$ for HIGHLAND AREA
DRAINAGE AREA = 23.84 sq. mi.
% IMPERVIOUS = 1.0%

Sub Watershed No. 2

$$T_p = C_t (L\,L_c)^{0.3}$$

$L = 4.34$ miles
$L_c = 2.17$ miles
$C_t = 2.0$ for average slopes

$$T_p = 2.0(4.34 \times 2.17)^{0.3} = 3.92 \text{ Hours}$$

$$t_r = \frac{t_p}{5.5} = \frac{3.92}{5.5} = 0.71 \qquad \text{USE } t_R = 0.5$$

$$t_{pr} = t_p + 0.25\,(t_R - t_r) = 3.92 + 0.25(0.5 - 0.71) =$$

$$= 3.87 \text{ Hours}$$

SET $C_p = 0.63$ for HIGHLAND AREA
DRAINAGE AREA = 13.03 sq. mi.
% IMPERVIOUS = 1.0

SUB WATERSHED NO. 3

$$T_p = C_t (L L_c)^{0.3}$$

$L = 7.89$ miles
$L_c = 4.34$ miles
$C_t = 2.0$ for average slopes

$$T_p = 2.0 (7.89 \times 4.34)^{0.3} = 5.77 \text{ HOURS}$$

$$t_r = \frac{t_p}{5.5} = \frac{5.77}{5.5} = 1.05 \quad \text{USE } t_R = 1.0$$

$$t_{pr} = t_p + 0.25(t_R - t_r) = 5.77 + 0.25(1.0 - 1.05) = 5.76 \text{ HOURS}$$

SET $C_p = 0.63$ for HIGHLAND AREA
DRAINAGE AREA = 17.47 sq mi
% IMPERVIOUS = 1.0

SUB WATERSHED NO. 4

$$T_p = C_t (L L_c)^{0.3}$$

$L = 4.34$ miles
$L_c = 2.17$ miles
$C_T = 2.0$

$$T_p = 2.0 (4.34 \times 2.17)^{0.3} = 3.92 \text{ HOURS}$$

$$t_r = \frac{t_p}{5.5} = \frac{3.92}{5.5} = 0.71 \quad \text{USE } t_r = 0.5$$

$$t_{pr} = 3.92 + 0.25(.5 - .71) = 3.87 \text{ HOURS}$$

SET $C_p = 0.63$ for HIGHLAND AREA
DRAINAGE AREA = 4.77 sq mi
% IMPERVIOUS = 1.0

Sub WATERSHED No 5

$T_P = C_t (L L_c)^{0.3}$

$L = 2.98$ miles
$L_c = 1.38$ miles
$C_t = 2.0$ for average slopes

$T_P = 2.0 (2.98 \times 1.38)^{0.3} = 3.06$ HOURS

$t_r = \frac{t_P}{5.5} = \frac{3.06}{5.5} = 0.56$ USE $t_R = 0.5$

$t_{PR} = 3.06 + 0.25 (0.5 - 0.56) = 3.05$ HOURS

SET $C_P = 0.63$ for HIGHLAND AREA
DRAINAGE AREA = 5.56 sq mi
% Impervious = 0.5 %

Sub WATERSHED No. 6

$T_P = C_t (L L_c)^{0.3}$

$L = 3.95$ miles
$L_c = 0.99$ miles
$C_t = 2.0$ for average slopes

$T_P = 2.0 (3.95 \times 0.99)^{0.3} = 3.01$ HOURS

$t_r = \frac{t_P}{5.5} = \frac{3.01}{5.5} = 0.55$ USE $t_R = 0.5$

$t_{PR} = t_P + 0.25 (t_R - t_r) = 3.01 + 0.25 (0.5 - 0.55) = 3.00$ Hours

SET $C_P = 0.63$ for HIGHLAND AREA
DRAINAGE AREA = 10.33 sq mi
% Impervious = 2.0

SUB WATERSHED NO. 7

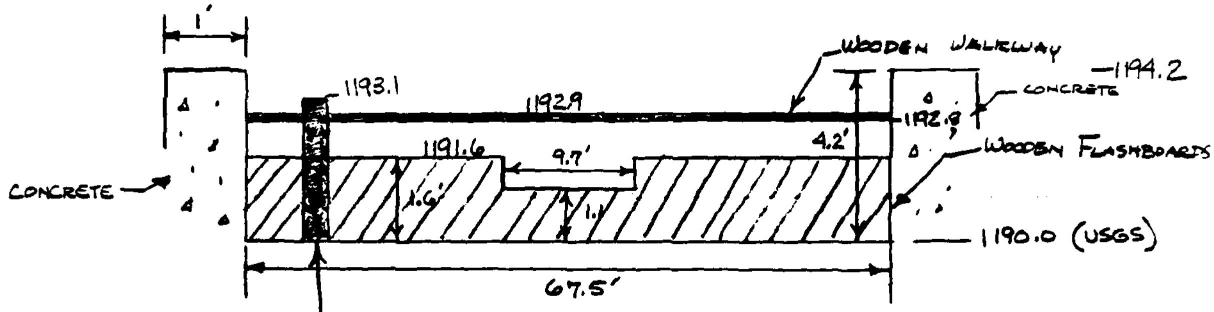
Surface AREA OF OTSEGO LAKE
SET Tp = 0
% IMPERVIOUS = 100
DRAINAGE AREA = 6.38 Sq mi

RAINFALL DATA (FROM HYDROMETEOROLOGICAL REPORT NO. 33)

24 HOUR DURATION PMP = 19.3 INCHES
FOR 200 Sq miles

DURATION (HRS)	Adj FACTOR (%)
6	86
12	100
24	112
48	119

Stage Discharge Data
w/ Flashboards in Place



13 supports ranging from 8 to 11 inches wide, spaced throughout the weir section

Stage (FT)	Weir $Q = 243H^{1.5}$	Weir $Q = 147.6H^{1.5}$	*Orifice $Q = 66.4H^{0.5}$	*Orifice $Q = 284.1H^{0.5}$	Weir $Q = 202.5H^{1.5}$	Weir $10.25H^{1.6}$	Discharge (CFS)
1191.1	0						0
1191.6	$24.3(.5)^{1.5}$						8.6
1192.0	$24.3(.9)^{1.5}$	$147.6(.4)^{1.5}$					58.1
1192.2	$24.3(1.1)^{1.5}$	$147.6(.6)^{1.5}$					96.6
1192.5	$24.3(1.4)^{1.5}$	$147.6(.9)^{1.5}$					166.3
1192.8	$24.3(1.7)^{1.5}$	$147.6(1.2)^{1.5}$					247.9
1192.93			$66.4(.93)^{.5}$	$284.1(.73)^{.5}$			306.8
1193.0			$66.4(1)$	$284.1(.8)^{.5}$	$171.75(.07)^{1.5}$		323.7
1193.1			$66.4(1.1)^{.5}$	$284.1(.9)^{.5}$	$171.75(.17)^{1.5}$		351.2
1193.5			$66.4(1.5)^{.5}$	$284.1(1.3)^{.5}$	$171.75(.57)^{1.5}$	$10.25(.4)^{1.5}$	481.8
1194.0			$66.4(2)^{.5}$	$284.1(1.8)^{.5}$	$171.75(1.07)^{1.5}$	$10.25(.9)^{1.5}$	673.9
1194.2			$66.4(2.2)^{.5}$	$284.1(2)^{.5}$	$171.75(1.27)^{1.5}$	$10.25(1.1)^{1.5}$	757.9
1195.0			$66.4(3)^{.5}$	$284.1(2.8)^{.5}$	$171.75(2.07)^{1.5}$	$10.25(1.9)^{1.5}$	1128.8
1200.0			$66.4(8)^{.5}$	$284.1(7.8)^{.5}$	$171.75(7.07)^{1.5}$	$10.25(6.9)^{1.6}$	4395.7
1208.0			$66.4(16)^{.5}$	$284.1(15.8)^{0.5}$	$171.75(15.07)^{1.5}$	$10.25(14.9)^{1.5}$	12,032.1
1210.0			$66.4(18)^{.5}$	$284.1(17.8)^{0.5}$	$171.75(17.07)^{1.5}$	$10.25(16.9)^{1.5}$	14,305.3

* The orifice flow condition was assumed to exist for stages equal to the walkway. For stages greater than the walkway the spillway section was analized as both orifice and weir flow conditions existing.

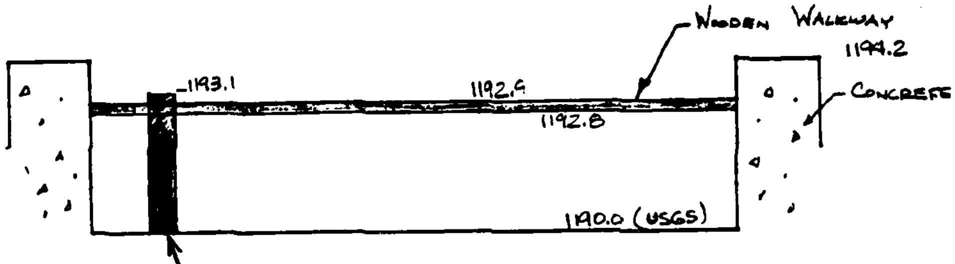
OJECT Corps Dams

OTSEGO

FLAHERTY-GIAVARA ASSOCIATES
ENVIRONMENTAL DESIGN CONSULTANTS
ONE COLUMBUS PLAZA, NEW HAVEN, CONN 06510/203/789-1260

SHEET NO. 6 OF 9
BY RAC DATE 4-27-81
CHK'D. BY TLW DATE 7-30-81

STAGE DISCHARGE DATA
W/OUT FLASHBOARDS IN PLACE



13 SUPPORTS RANGING FROM 8 to 11 inches WIDE, SPACED THROUGHOUT the WEIR SECTION

STAGE	WEIR $Q = 171.75\,H^{1.5}$	* ORIFICE $Q = 771.8\,H^{0.5}$	WEIR $Q = 10.25\,H^{1.5}$	DISCHARGE (CFS)
1190.0	–			0
1190.5	$171.75(.5)^{1.5}$			25.4
1191.0	171.75 (1)			171.8
1191.5	$171.75(1.5)^{1.5}$			315.5
1192.0	$171.75(2)^{1.5}$			485.8
1192.2	$171.75(2.2)^{1.5}$			560.4
1192.5	$171.75(2.5)^{1.5}$	–		678.9
1192.8	–	$771.8(.9)^{.5}$		732.2
1192.93	–	$771.8(1.03)^{.5}$		783.3
1193.0	$171.75(.07)^{1.5}$	$771.8(1.1)^{.5}$		812.7
1193.1	$171.75(.17)^{1.5}$	$771.8(1.2)^{.5}$	–	857.5
1193.5	$171.75(.57)^{1.5}$	$771.8(1.6)^{.5}$	$10.25(.4)^{1.5}$	1052.8
1194.0	$171.75(1.07)^{1.5}$	$771.8(2.1)^{.5}$	$10.25(.9)^{1.5}$	1317.3
1194.2	$171.75(1.27)^{1.5}$	$771.8(2.3)^{.5}$	$10.25(1.1)^{1.5}$	1428.1
1195.0	$171.75(2.07)^{1.5}$	$771.8(3.1)^{.5}$	$10.25(1.9)^{1.5}$	1897.2
1200.0	$171.75(7.07)^{1.5}$	$771.8(8.1)^{.5}$	$10.25(6.9)^{1.5}$	5611.0
1208.0	$171.75(15.07)^{1.5}$	$771.8(16.1)^{.5}$	$10.25(14.9)^{1.5}$	13,734.1

* SEE NOTE ON THE PREVIOUS PAGE

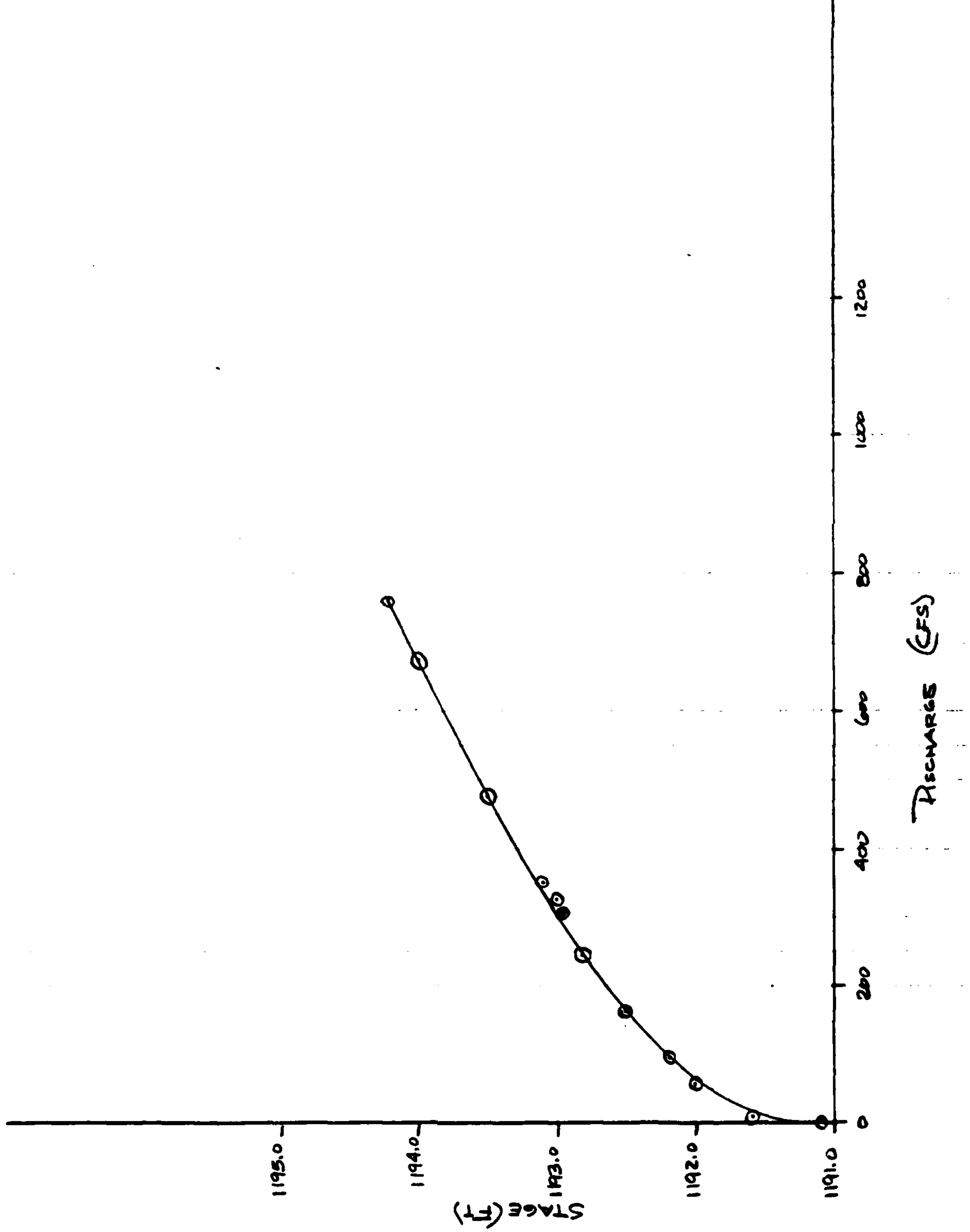
PROJECT Corps Dams

Otsego

FLAHERTY-GIAVARA ASSOCIATES
ENVIRONMENTAL DESIGN CONSULTANTS
ONE COLUMBUS PLAZA, NEW HAVEN, CONN 06510/203/789-1260

SHEET NO. 7 OF 9
BY RAC DATE 4-27-81
CHK'D. BY TLW DATE 7-30-81

STAGE DISCHARGE CURVE
W/ FLASHBOARDS IN PLACE



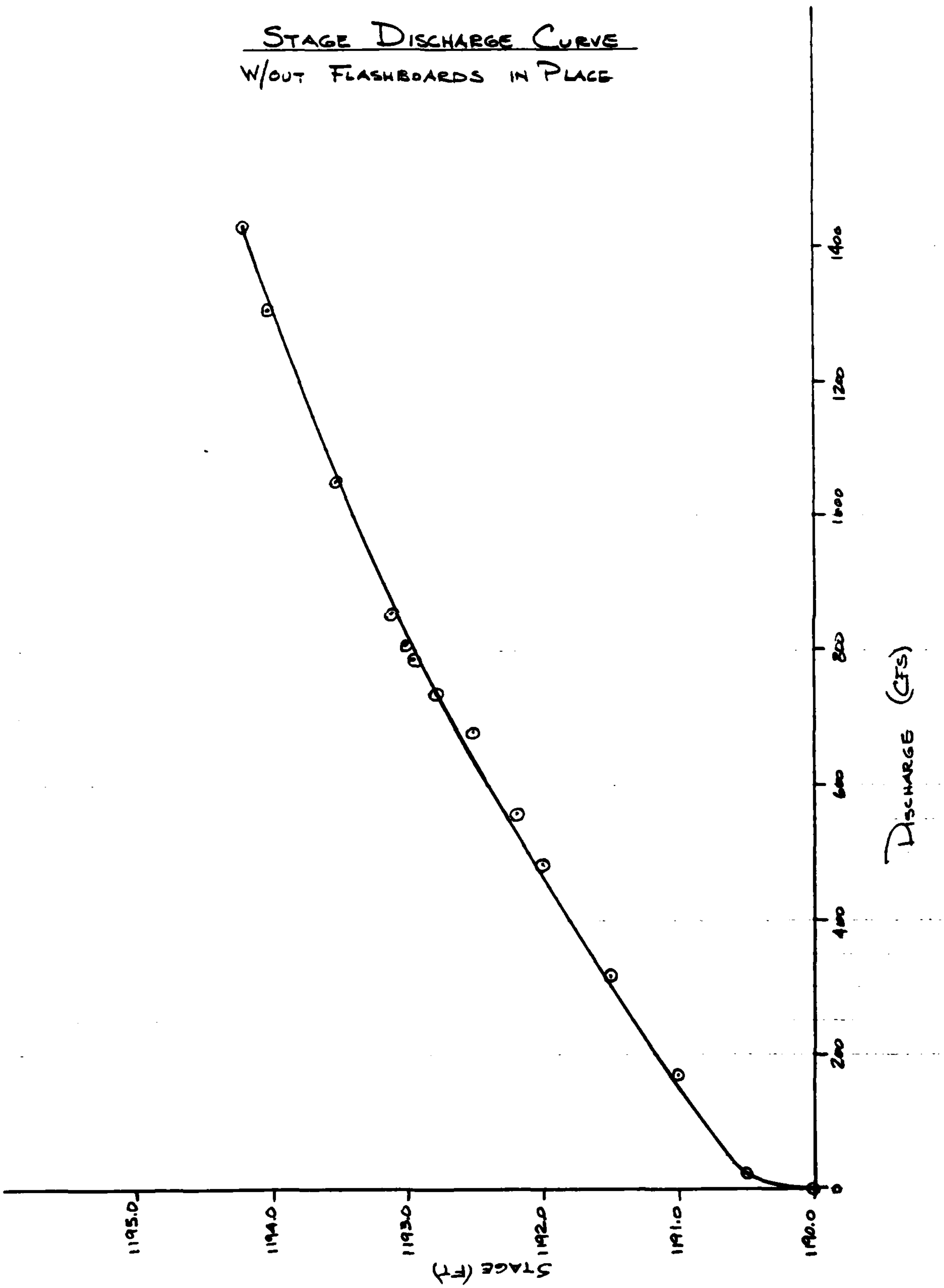
PROJECT Corps Dams

Otsego

FLAHERTY-GIAVARA ASSOCIATES
ENVIRONMENTAL DESIGN CONSULTANTS
ONE COLUMBUS PLAZA, NEW HAVEN, CONN 06510/203/789-1260

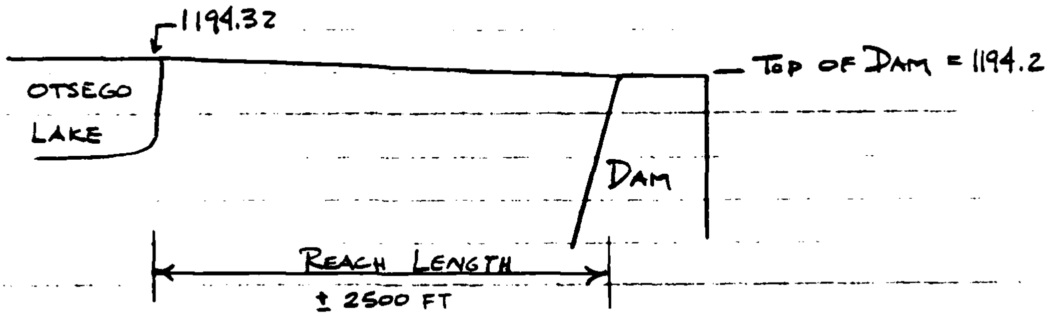
SHEET NO. 8 OF 9
BY RAC DATE 4-27-81
CHK'D. BY TLW DATE 7-30-81

STAGE DISCHARGE CURVE
W/OUT FLASHBOARDS IN PLACE



BACKWATER FROM DAM

RESULTS from HEC 2 COMPUTER RUN



∴ @ Top of Dam (1194.2) additional storage will accumulate in OTSEGO LAKE due to backwater

Top of Dam = 1194.2 SA = 4272
@ 1220 SA = 5402

$$\frac{1220-1194.2}{5402-4272} = \frac{1194.32-1194.2}{x}$$

x = 4272 + 5.3 = 4277.3 AC

$$\Delta \text{STOR} = \frac{4277.3 + 4272}{2}(0.12) \approx 513 \text{ AC-FT}$$

@ 1194.2 STOR = 39,300 AC-FT
@ 1194.32 " = 39813 AC-FT SAY 39,800 AC-FT

∴ STOR @ 1194.2 = 39,800 AC-FT
DUE TO BACKWATER

BACKWATER ANALYSIS

```
FLAHERTY GIAVARA ASSOCIATES, P.C.
 ***************************************************                              *************************
 *  WATER SURFACE PROFILES                         *                              *  U.S. ARMY CORPS OF ENGI
 *  VERSION OF NOVEMBER 1976                       *                              *  THE HYDROLOGIC ENGINEER
 *  UPDATED APRIL 1980                             *                              *  609 SECOND STREET, SUIT
 *                                                 *                              *  DAVIS, CALIFORNIA 95616
 *  RUN DATE 08/24/81 TIME 10:45:35                *                              *  (916) 440-2105 (FTS) 448-21
 ***************************************************                              *************************

                                        X     X  XXXXXXX   XXXXX          XXXXX
                                        X     X  X        X     X        X     X
                                        X     X  X        X                    X
                                        XXXXXXX  XXXX     X         XXXXX  XXXXX
                                        X     X  X        X              X
                                        X     X  X        X     X        X
                                        X     X  XXXXXXX   XXXXX         XXXXXXX

 08/24/81  10:45:40                                                                        PAGE    1

                                                                  THIS RUN EXECUTED 08/24/81  10:45:41
 ****************************************************
   HEC2 RELEASE DATED NOV 76 UPDATED SEPT 1980
   EXPERIMENTAL MODS FOR ICE ANALYSIS
   ERROR CORR -  01,02,03,04
   MODIFICATION -  50,51,52,53,54,99,4,
 ****************************************************

T1     NATIONAL DAM INSPECTION PROGRAM, PHASE I REPORT, CORPS OF ENGINEERS, NEW YORK - DISTRICT
T2     BACKWATER FROM DAM INVENTORY NO. NY 361, OTSEGO LAKE DAM, OTSEGO COUNTY, NEW YORK, AUGUST 19, 1981
T3     PREPARED BY FLAHERTY GIAVARA ASSOCIATES, P.C., ONE COLUMBUS PLAZA, NEW HAVEN, CONNECTICUT

J1   ICHECK     ING      NINV      IDIR      STRT     METRIC    HVINS       Q       WSEL       FQ
         0.       0.       0.        0.  0.000000     0.00      0.0      1428.   1194.200    0.000

J2   NPROF     IPLOT     PRFVS     XSECV     XSECH       FN     ALLDC      IBW      CHNIM    ITRACE
      -1.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000     0.000

NC       0.060     0.060     0.040     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1       1.000     8.000   188.000   362.000     0.000     0.000     0.000     0.000     0.000     0.000
GR    1220.000     0.000  1200.000    50.000  1190.000   188.000  1184.000   200.000  1184.000   350.000
GR    1190.000   362.000  1200.000   400.000  1220.000   650.000     0.000     0.000     0.000     0.000
NC       0.060     0.060     0.040     0.000     0.000     0.000     0.000     0.000     0.000     0.000

X1       2.000     8.000    65.000   185.000  1000.000  1000.000  1000.000     0.000     0.000     0.000
GR    1220.000     0.000  1200.000    50.000  1190.000    65.000  1184.400    75.000  1184.400   175.000
GR    1190.000   185.000  1200.000   275.000  1220.000   425.000     0.000     0.000     0.000     0.000
```

```
NC      0.060      0.060      0.040      0.000      0.000      0.000      0.000      0.000      0.000      0.000

X1      3.000      8.000    140.000    260.000   1000.000   1000.000   1000.000      0.000      0.000      0.000
GR   1220.000      0.000   1200.000    100.000   1190.000    140.000   1184.800    150.000   1184.800    250.000
GR   1190.000    260.000   1200.000    350.000   1220.000    650.000      0.000      0.000      0.000      0.000
NC      0.060      0.060      0.040      0.000      0.000      0.000      0.000      0.000      0.000      0.000

X1      4.000      8.000    940.000   1060.000    500.000    500.000    500.000      0.000      0.000      0.000
GR   1220.000      0.000   1200.000    750.000   1190.000    940.000   1185.000    950.000   1185.000   1050.000
GR   1190.000   1060.000   1200.000   1250.000   1220.000   1550.000      0.000      0.000      0.000      0.000
EJ      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000      0.000
```



```
    SECNO      DEPTH     CWSEL     CRIWS     WSELK      EG        HV        HL      OLOSS    BANK ELEV
    Q          QLOB      QCH       QROB      ALOB       ACH       AROB      VOL     TWA     LEFT/RIGHT
    TIME       VLOB      VCH       VROB      XNL        XNCH      XNR       WTN     ELMIN      SSTA
    SLOPE      XLOBL     XLCH      XLOBR     ITRIAL     IDC       ICONT     CORAR   TOPWID     ENDST

*PROF 1

*SECNO 1.000
      1.00     10.20   1194.20      0.00   1194.20   1194.21      0.01      0.00      0.00   1190.00
     1428.       24.     1397.        6.      122.     1703.       34.        0.        0.    1190.00
      0.00      0.20      0.82      0.17     0.060     0.040     0.060     0.000   1184.00    130.04
  0.000024        0        0.        0.        0         0         0      -0.00    247.92    377.96

*SECNO 2.000
      2.00      9.82   1194.22      0.00      0.00   1194.25      0.02      0.04      0.00   1190.00
     1428.        4.     1399.       25.       13.     1123.       80.       35.        5.    1190.00
      0.23      0.28      1.25      0.31     0.060     0.040     0.060     0.000   1184.40     38.66
  0.000059     1000.     1000.     1000.        0         0         0      -0.00    164.35    223.01

*SECNO 3.000
      3.00      9.48   1194.28      0.00      0.00   1194.31      0.02      0.06      0.00   1190.00
      1428       12.     1389.       27.       37.     1085.       82.       63.        9.    1190.00
      0.45      0.32      1.28      0.33     0.060     0.040     0.060     0.000   1184.80    122.71
  0.000065      1000      1000     1000.        1         0         0      -0.00    175.54    298.45

*SECNO 4.000
      4.00      9.32   1194.32      0.00      0.00   1194.34      0.02      0.03      0.00   1190.00
      1428       57.     1314.       57.      177.     1068.      177.       78.       11.    1190.00
      0.57      0.32      1.23      0.32     0.060     0.040     0.060     0.000   1185.00    858.05
  0.000061      500       500.      500.        0         0         0      -0.00    283.89   1141.95
```


THIS RUN EXECUTED 08/24/81 10:45:57

```
**************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED SEPT 1980
  EXPERIMENTAL MODS FOR ICE ANALYSIS
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54,99,4,
**************************************************
```

NOTE- ASTERISK (*) AT LEFT OF CROSS-SECTION NUMBER INDICATES MESSAGE IN SUMMARY OF ERRORS LIST

OTSEGO COUNTY, NEW YORK
SUMMARY PRINTOUT TABLE 150

SECNO	XLCH	ELTRD	ELLC	ELMIN	Q	CWSEL	CRIWS	EG	10*KS	VCH	AREA	.01K
1.000	0.00	0.00	0.00	1184.00	1428.00	1194.20	0.00	1194.21	0.24	0.82	1858.02	2926.08
2.000	1000.00	0.00	0.00	1184.40	1428.00	1194.22	0.00	1194.25	0.59	1.25	1216.53	1860.42
3.000	1000.00	0.00	0.00	1184.80	1428.00	1194.28	0.00	1194.31	0.65	1.28	1203.39	1772.86
4.000	500.00	0.00	0.00	1185.00	1428.00	1194.32	0.00	1194.34	0.61	1.23	1420.99	1826.90

08/24/81 10:45:40 PAGE 4

OTSEGO COUNTY, NEW YORK
SUMMARY PRINTOUT TABLE 150

SECNO	Q	CWSEL	IFPRB	IFMAX	IFSB	OPLD	XLCH
1.000	1428.00	1194.20	0.00	0.00	0.00	247.72	0.00
2.000	1428.00	1194.22	0.00	0.02	0.00	164.35	1000.00
3.000	1428.00	1194.28	0.00	0.06	0.00	175.94	1000.00
4.000	1428.00	1194.32	0.00	0.03	0.00	283.89	500.00

08/24/81 10:45:40 PAGE 5

SUMMARY OF ERRORS

08/24/81 10:46:02 PAGE 1

THIS RUN EXECUTED 08/24/81 10:46:03

```
*****************************************************
  HEC2 RELEASE DATED NOV 76 UPDATED SEPT 1980
  EXPERIMENTAL MODS FOR ICE ANALYSIS
  ERROR CORR -  01,02,03,04
  MODIFICATION -  50,51,52,53,54,99,4,
*****************************************************
```

HEC-1 FLOOD HYDROGRAPH COMPUTATIONS

(WITH FLASHBOARDS IN PLACE)

```
FLAHERTY GIAVARA ASSOCIATES, P.C.
*********************************
FLOOD HYDROGRAPH PACKAGE (HEC-1)
DAM SAFETY VERSION      JULY 1978
  LAST MODIFICATION  26 FEB 79
**********************************
A1   NATIONAL DAM INSPECTION PROGRAM, PHASE I REPORT, CORPS OF ENGINEERS - NEW YORK DISTRICT
A2   DAM INVENTORY NO. NY 361, OTSEGO LAKE DAM (WITH FLASHBOARDS), CHENANGO COUNTY, NEW YORK, APRIL 27, 1981
A3   PREPARED BY FLAHERTY GIAVARA ASSOCIATES, P.C., ONE COLUMBUS PLAZA, NEW HAVEN, CONNECTICUT
B     120      0     30      0      0      0      0      2      0      0
B1      5
J       1      9      1
J1   0.20   0.25   0.26   0.27   0.28   0.29   0.30   0.50   1.00
K       0      1                    0      0      1      0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 1
M       1      1  23.84                    0                    1
P       0   19.3     86    100    112    119
T                                                 1    0.1           0.01
W    4.61   0.63
X    -2.0  -0.10    1.5
K       0      1                    0      0      1      0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 2
M       1      1  13.03                    0                    1
P       0   19.3     86    100    112    119
T                                                 1    0.1           0.01
W    3.87   0.63
X    -2.0  -0.10    1.5
K       2      1                    0      0      1      0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0      1                    0      0      1      0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 3
M       1      1  17.47                    0                    1
P       0   19.3     86    100    112    119
T                                                 1    0.1           0.01
W    5.76   0.63
X    -2.0  -0.10    1.5
K       2      1                    0      0      1      0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0      1                    0      0      1      0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 4
M       1      1   4.77                    0
P       0   19.3     86    100    112    119
T                                                 1    0.1           0.01
W    3.87   0.63
X    -2.0  -0.10    1.5
K       2      1                    0      0      1      0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0      1                    0      0      1      0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 5
M       1      1   5.56                    0                    1
P       0   19.3     86    100    112    119
T                                                 1    0.1          0.005
W    3.05   0.63
X    -2.0  -0.10    1.5
K       2      1                    0      0      1      0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0      1                    0      0      1      0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 6
```

```
53   M      1      1   10.33                        0                          1
54   P      0   19.3      86     100     112      119       1     0.1                0.02
55   T
56   W   3.00   0.63
57   X   -2.0  -0.10     1.5                    0       0       1       0
58   K      2      1
59   K1  COMBINE 2 INFLOW HYDROGRAPHS           0       0       1       0
60   K      0      1
61   K1  INFLOW HYDROGRAPH - SUBWATERSHED NO. 7 (OTSEGO LAKE)                  1
62   M      1      1    6.38                        0
63   P      0   19.3      86     100     112      119       0       0           1
64   T
65   W      0   0.63
66   X   -2.0  -0.10     1.5                    0       0       1       0
67   K      2      1
68   K1  COMBINE 2 INFLOW HYDROGRAPHS           0       0       1       0
69   K      1      1
70   K1  OTSEGO LAKE ROUTING - MODIFIED PULS METHOD
71   Y                             1       1
72   Y1     1                                                   0      -1
73   Y41191.1  1191.6  1192.0  1192.2  1192.5  1192.8  1192.9  1193.0  1193.1  1193.5
74   Y41194.0  1194.2  1195.0  1200.0  1208.0  1210.0
75   Y5     0     8.6    58.1    96.6   166.3   247.9   306.8   323.7   351.2   481.8
76   Y5 673.9   757.9  1128.8  4395.7 12032.1 14305.3
77   $B 20440   27400   37800  112820
78   $E1190.0  1191.6  1194.2  1220.0
79   $$1191.1
80   $D1194.2     2.5     1.5       2
81   K     99
```

PREVIEW OF SEQUENCE OF STREAM NETWORK CALCULATIONS

```
RUNOFF HYDROGRAPH AT           1
RUNOFF HYDROGRAPH AT           1
COMBINE  2 HYDROGRAPHS AT      1
RUNOFF HYDROGRAPH AT           1
COMBINE  2 HYDROGRAPHS AT      1
RUNOFF HYDROGRAPH AT           1
COMBINE  2 HYDROGRAPHS AT      1
RUNOFF HYDROGRAPH AT           1
COMBINE  2 HYDROGRAPHS AT      1
RUNOFF HYDROGRAPH AT           1
COMBINE  2 HYDROGRAPHS AT      1
RUNOFF HYDROGRAPH AT           1
COMBINE  2 HYDROGRAPHS AT      1
ROUTE HYDROGRAPH TO            1
END OF NETWORK
```

```
**********************************
FLOOD HYDROGRAPH PACKAGE (HEC-1)
DAM SAFETY VERSION       JULY 1978
  LAST MODIFICATION  26 FEB 79
**********************************

RUN  DATE: 8/22/
     TIME: 8:23 AM
```

```
                    PREPARED BY FLAHERTY GIAVARA ASSOCIATES, P.C., ONE COLUMBUS PLAZA, NEW HAVEN, CONNECTICUT
                                          JOB SPECIFICATION
              NQ      NHR     NMIN     IDAY     IHR     IMIN    METRC    IPLT    IPRT    NSTAN
             120        0       30        0       0        0        0       2       0        0
                                       JOPER     NWT    LROPT    TRACE
                                           5       0        0        0

                                   MULTI-PLAN ANALYSES TO BE PERFORMED
                                      NPLAN= 1 NRTIO= 9 LRTIO= 1
               RTIOS=   0.20   0.25   0.26   0.27   0.28   0.29   0.30   0.50   1.00

         *********          *********          *********          *********          *********

                                       SUB-AREA RUNOFF COMPUTATION

             INFLOW HYDROGRAPH - SUBWATERSHED NO. 1
                          ISTAQ   ICOMP   IECON   ITAPE    JPLT    JPRT   INAME  ISTAGE   IAUTO
                              1       0       0       0       0       0       1       0       0

                                            HYDROGRAPH DATA
             IHYDG    IUHG   TAREA    SNAP   TRSDA   TRSPC   RATIO   ISNOW   ISAME   LOCAL
                 1       1   23.84    0.00   23.84    0.00   0.000       0       1       0

                                              PRECIP DATA
                    SPFE     PMS      R6     R12     R24     R48     R72     R96
                    0.00   19.30   86.00  100.00  112.00  119.00    0.00    0.00
 TRSPC COMPUTED BY THE PROGRAM IS 0.829

                                               LOSS DATA
           LROPT   STRKR   DLTKR   RTIOL   ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
               0    0.00    0.00    1.00    0.00    0.00    1.00    1.00    0.10    0.00    0.01

                                          UNIT HYDROGRAPH DATA
                                    TP=  4.61     CP=0.63      NTA=  0

                                             RECESSION DATA
                                STRTQ=   -2.00    QRCSN=   -0.10    RTIOR= 1.50
 APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC=10.22 AND R= 8.29 INTERVALS

             UNIT HYDROGRAPH 30 END-OF-PERIOD ORDINATES, LAG=   4.57 HOURS, CP= 0.63  VOL= 1.00
              76.      281.      567.      894.     1246.     1591.     1876.     2068.     2169.     2165.
            2020.     1798.     1594.     1412.     1251.     1109.      983.      871.      772.      684.
             606.      537.      476.      422.      374.      331.      294.      260.      231.      204.
             181.      160.      142.      126.      112.       99.       88.       78.       69.       61.
              54.       48.       42.       38.       33.       30.       26.       23.       21.       18.

                                            END-OF-PERIOD FLOW
      O
   MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS   COMP Q    MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS   COMP Q
    1.01   0.30       1   0.00   0.00   0.00      46.     1.02   6.30      61   0.19   0.14   0.05     281.
    1.01   1.00       2   0.00   0.00   0.00      44.     1.02   7.00      62   0.19   0.14   0.05     335.
    1.01   1.30       3   0.00   0.00   0.00      42.     1.02   7.30      63   0.19   0.14   0.05     423.
    1.01   2.00       4   0.00   0.00   0.00      41.     1.02   8.00      64   0.19   0.14   0.05     548.
    1.01   2.30       5   0.00   0.00   0.00      39.     1.02   8.30      65   0.19   0.14   0.05     715.
    1.01   3.00       6   0.00   0.00   0.00      38.     1.02   9.00      66   0.19   0.14   0.05     922.
```

1.01	3.30	7	0.00	0.00	0.00	36.	1.02	9.30	67	0.19	0.14	0.05	1163.
1.01	4.00	8	0.00	0.00	0.00	35.	1.02	10.00	68	0.19	0.14	0.05	1426.
1.01	4.30	9	0.00	0.00	0.00	34.	1.02	10.30	69	0.19	0.14	0.05	1700.
1.01	5.00	10	0.00	0.00	0.00	32.	1.02	11.00	70	0.19	0.14	0.05	1973.
1.01	5.30	11	0.00	0.00	0.00	31.	1.02	11.30	71	0.19	0.14	0.05	2228.
1.01	6.00	12	0.00	0.00	0.00	30.	1.02	12.00	72	0.19	0.14	0.05	2454.
1.01	6.30	13	0.01	0.00	0.01	29.	1.02	12.30	73	0.69	0.64	0.05	2693.
1.01	7.00	14	0.01	0.00	0.01	28.	1.02	13.00	74	0.69	0.64	0.05	3011.
1.01	7.30	15	0.01	0.00	0.01	27.	1.02	13.30	75	0.83	0.78	0.05	3463.
1.01	8.00	16	0.01	0.00	0.01	26.	1.02	14.00	76	0.83	0.78	0.05	4090.
1.01	8.30	17	0.01	0.00	0.01	25.	1.02	14.30	77	1.03	0.98	0.05	4931.
1.01	9.00	18	0.01	0.00	0.01	24.	1.02	15.00	78	1.03	0.98	0.05	6019.
1.01	9.30	19	0.01	0.00	0.01	24.	1.02	15.30	79	1.25	1.20	0.05	7361.
1.01	10.00	20	0.01	0.00	0.01	23.	1.02	16.00	80	3.97	3.92	0.05	9156.
1.01	10.30	21	0.01	0.00	0.01	22.	1.02	16.30	81	0.96	0.91	0.05	11496.
1.01	11.00	22	0.01	0.00	0.01	22.	1.02	17.00	82	0.96	0.91	0.05	14155.
1.01	11.30	23	0.01	0.00	0.01	21.	1.02	17.30	83	0.76	0.71	0.05	16898.
1.01	12.00	24	0.01	0.00	0.01	20.	1.02	18.00	84	0.76	0.71	0.05	19567.
1.01	12.30	25	0.04	0.00	0.04	20.	1.02	18.30	85	0.10	0.05	0.05	21964.
1.01	13.00	26	0.04	0.00	0.04	19.	1.02	19.00	86	0.10	0.05	0.05	23806.
1.01	13.30	27	0.05	0.00	0.05	19.	1.02	19.30	87	0.10	0.05	0.05	24934.
1.01	14.00	28	0.05	0.00	0.05	19.	1.02	20.00	88	0.10	0.05	0.05	25320.
1.01	14.30	29	0.06	0.00	0.06	19.	1.02	20.30	89	0.10	0.05	0.05	24940.
1.01	15.00	30	0.06	0.00	0.06	19.	1.02	21.00	90	0.10	0.05	0.05	23745.
1.01	15.30	31	0.08	0.00	0.08	19.	1.02	21.30	91	0.10	0.05	0.05	22025.
1.01	16.00	32	0.25	0.00	0.25	20.	1.02	22.00	92	0.10	0.05	0.05	20158.
1.01	16.30	33	0.06	0.00	0.06	21.	1.02	22.30	93	0.10	0.05	0.05	18261.
1.01	17.00	34	0.06	0.00	0.06	22.	1.02	23.00	94	0.10	0.05	0.05	16418.
1.01	17.30	35	0.05	0.00	0.05	23.	1.02	23.30	95	0.10	0.05	0.05	14717.
1.01	18.00	36	0.05	0.00	0.05	24.	1.03	0.00	96	0.10	0.05	0.05	13205.
1.01	18.30	37	0.01	0.00	0.01	25.	1.03	0.30	97	0.00	0.00	0.00	11861.
1.01	19.00	38	0.01	0.00	0.01	26.	1.03	1.00	98	0.00	0.00	0.00	10660.
1.01	19.30	39	0.01	0.00	0.01	26.	1.03	1.30	99	0.00	0.00	0.00	9581.
1.01	20.00	40	0.01	0.00	0.01	26.	1.03	2.00	100	0.00	0.00	0.00	8607.
1.01	20.30	41	0.01	0.00	0.01	26.	1.03	2.30	101	0.00	0.00	0.00	7722.
1.01	21.00	42	0.01	0.00	0.01	24.	1.03	3.00	102	0.00	0.00	0.00	6915.
1.01	21.30	43	0.01	0.00	0.01	23.	1.03	3.30	103	0.00	0.00	0.00	6179.
1.01	22.00	44	0.01	0.00	0.01	22.	1.03	4.00	104	0.00	0.00	0.00	5508.
1.01	22.30	45	0.01	0.00	0.01	20.	1.03	4.30	105	0.00	0.00	0.00	4897.
1.01	23.00	46	0.01	0.00	0.01	19.	1.03	5.00	106	0.00	0.00	0.00	4345.
1.01	23.30	47	0.01	0.00	0.01	17.	1.03	5.30	107	0.00	0.00	0.00	3850.
1.02	0.00	48	0.01	0.00	0.01	16.	1.03	6.00	108	0.00	0.00	0.00	3412.
1.02	0.30	49	0.06	0.01	0.05	16.	1.03	6.30	109	0.00	0.00	0.00	3023.
1.02	1.00	50	0.06	0.01	0.05	19.	1.03	7.00	110	0.00	0.00	0.00	2679.
1.02	1.30	51	0.06	0.01	0.05	26.	1.03	7.30	111	0.00	0.00	0.00	2480.
1.02	2.00	52	0.06	0.01	0.05	38.	1.03	8.00	112	0.00	0.00	0.00	2381.
1.02	2.30	53	0.06	0.01	0.05	56.	1.03	8.30	113	0.00	0.00	0.00	2286.
1.02	3.00	54	0.06	0.01	0.05	78.	1.03	9.00	114	0.00	0.00	0.00	2196.
1.02	3.30	55	0.06	0.01	0.05	104.	1.03	9.30	115	0.00	0.00	0.00	2108.
1.02	4.00	56	0.06	0.01	0.05	133.	1.03	10.00	116	0.00	0.00	0.00	2025.
1.02	4.30	57	0.06	0.01	0.05	164.	1.03	10.30	117	0.00	0.00	0.00	1944.
1.02	5.00	58	0.06	0.01	0.05	195.	1.03	11.00	118	0.00	0.00	0.00	1867.
1.02	5.30	59	0.06	0.01	0.05	223.	1.03	11.30	119	0.00	0.00	0.00	1793.
1.02	6.00	60	0.06	0.01	0.05	249.	1.03	12.00	120	0.00	0.00	0.00	1721.
									SUM	19.03	15.54	3.48	479095.
										(483.)	(395.)	(88.)	(13566.45)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25320.	21412.	9658.	3985.	478211.
CMS	717.	606.	273.	113.	13541.
INCHES		8.35	15.07	15.55	15.55
MM		212.22	382.89	394.96	394.96
AC-FT		10618.	19157.	19761.	19761.
THOUS CU M		13097.	23629.	24375.	24375.

DVF

STATION 1

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                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.       0.        0.        0.        0.        0.
                                                                                               PRECIP(L) AND EXCESS(X)
        0.        0.        0.        0.        0.        0.        0.        0.        4.        3.        2.        1.        0.
 0.30   1I                                                                                                                  L
 1.00   2I                                                                                                                  L
 1.30   3I                                                                                                                  L
 2.00   4I                                                                                                                  L
 2.30   5I                                                                                                                  L
 3.00   6I                                                                                                                  L
 3.30   7I                                                                                                                  L
 4.00   8I                                                                                                                  L
 4.30   9I                                                                                                                  L
 5.00  10I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .L
 5.30  11I                                                                                                                  L
 6.00  12I                                                                                                                  L
 6.30  13I                                                                                                                  L
 7.00  14I                                                                                                                  L
 7.30  15I                                                                                                                  L
 8.00  16I                                                                                                                  L
 8.30  17I                                                                                                                  L
 9.00  18I                                                                                                                  L
 9.30  19I                                                                                                                  L
10.00  20I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .L
10.30  21I                                                                                                                  L
11.00  22I                                                                                                                  L
11.30  23I                                                                                                                  L
12.00  24I                                                                                                                  L
12.30  25I                                                                                                                  L
13.00  26I                                                                                                                  L
13.30  27I                                                                                                                 LX
14.00  28I                                                                                                                 LX
14.30  29I                                                                                                                 LX
15.00  30I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .LX
15.30  31I                                                                                                                 LX
16.00  32I                                                                                                                LLX
16.30  33I                                                                                                                 LX
17.00  34I                                                                                                                 LX
17.30  35I                                                                                                                  L
18.00  36I                                                                                                                  L
18.30  37I                                                                                                                  L
19.00  38I                                                                                                                  L
19.30  39I                                                                                                                  L
20.00  40I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .L
20.30  41I                                                                                                                  L
21.00  42I                                                                                                                  L
21.30  43I                                                                                                                  L
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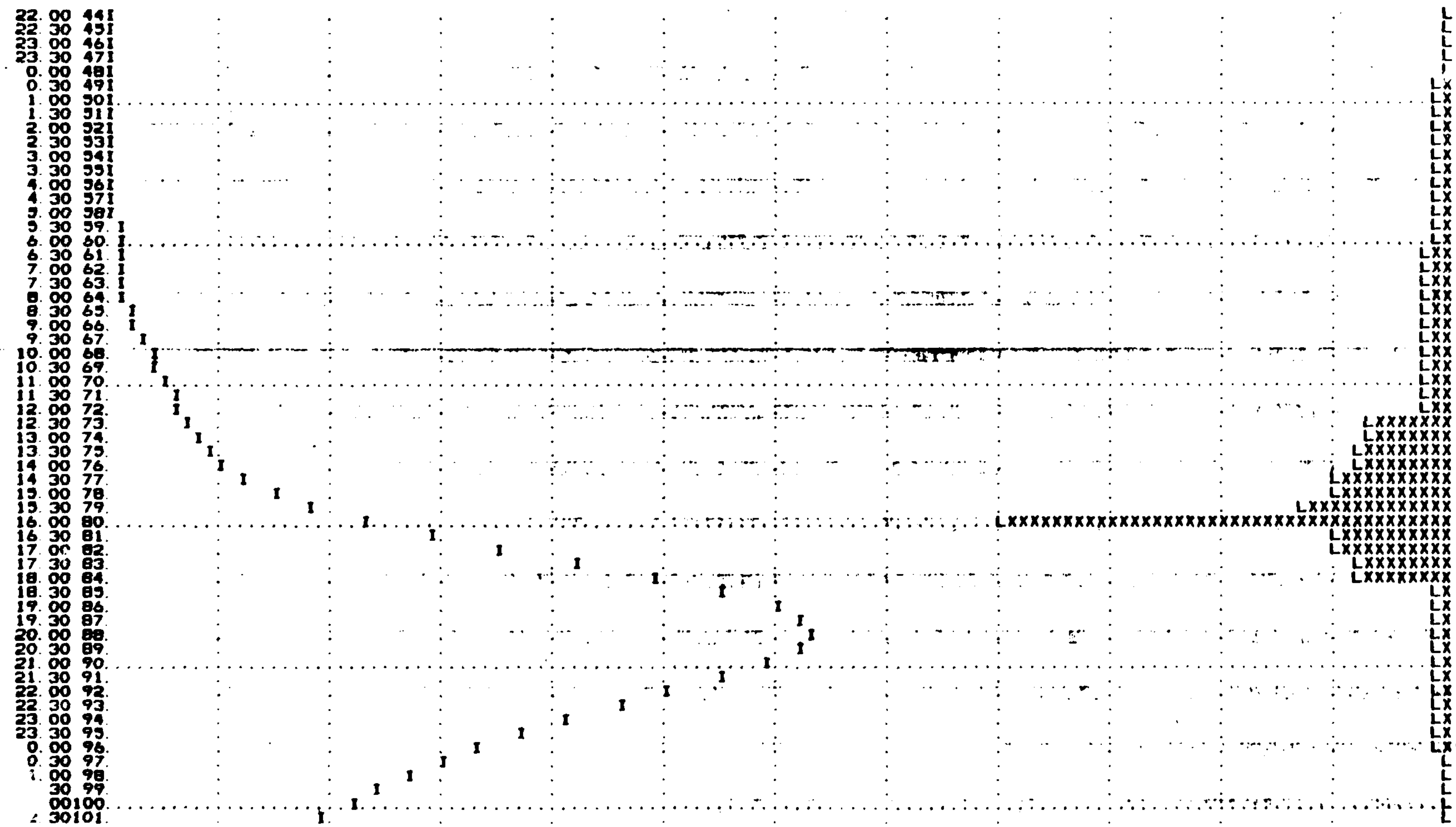
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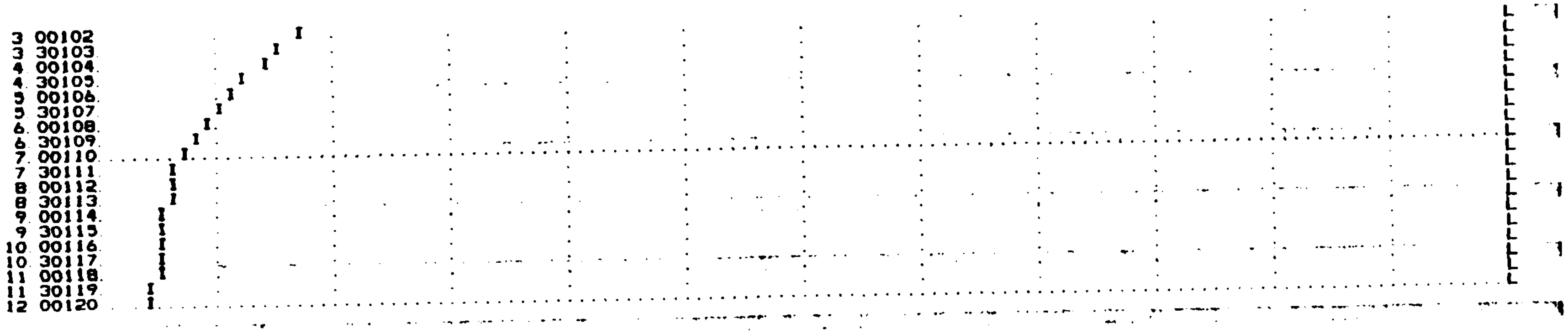

OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

9.	9.	8.	8.	8.	8.	7.	7.	7.	6.
6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	5.	5.	5.	5.	5.	5.
5.	5.	5.	4.	4.	4.	3.	3.	3.	4.
5.	8.	11.	16.	21.	27.	33.	39.	45.	50.
56.	67.	85.	110.	143.	184.	233.	285.	340.	395.
446.	491.	539.	602.	693.	818.	986.	1204.	1472.	1831.
2299.	2831.	3380.	3913.	4393.	4761.	4987.	5064.	4988.	4749.
4405.	4032.	3652.	3284.	2943.	2641.	2372.	2132.	1916.	1721.
1544.	1383.	1236.	1102.	979.	869.	770.	682.	605.	536.
496.	476.	457.	439.	422.	405.	389.	373.	359.	344.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5064.	4282.	1932.	797.	95642.
CMS	143.	121.	55.	23.	2708.
INCHES		1.67	3.01	3.11	3.11
MM		42.44	76.58	78.99	78.99
AC-FT		2124.	3831.	3952.	3952.
THOUS CU M		2619.	4726.	4875.	4875.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

11.	11.	11.	10.	10.	9.	9.	9.	8.	8.
8.	7.	7.	7.	7.	6.	6.	6.	6.	6.
6.	5.	5.	5.	5.	5.	5.	5.	5.	5.
5.	5.	5.	5.	6.	6.	6.	7.	7.	7.
6.	6.	6.	5.	5.	5.	4.	4.	4.	5.
7.	10.	14.	19.	26.	33.	41.	49.	56.	62.
70.	84.	106.	137.	179.	230.	291.	357.	425.	493.
557.	614.	673.	753.	866.	1022.	1233.	1505.	1840.	2289.
2874.	3539.	4229.	4892.	5491.	5952.	6234.	6330.	6235.	5936.
5506.	5039.	4565.	4104.	3679.	3301.	2965.	2665.	2395.	2152.

1931.	1729.	1545.	1377.	1224.	1086.	963.	853.	756.	670.
620	595.	572.	549.	527.	506.	486.	467.	448.	430.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6330.	5353.	2415.	996.	119553.
CMS	179.	152.	68.	28.	3385.
INCHES		2.09	3.77	3.89	3.89
MM		53.05	95.72	98.74	98.74
AC-FT		2654.	4789.	4940.	4940.
THOUS CU M		3274.	5907.	6094.	6094.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

12.	11.	11.	11.	10.	10.	9.	9.	9.	8.
8.	8.	8.	7.	7.	7.	7.	6.	6.	6.
6.	6.	5.	5.	5.	5.	5.	5.	5.	5.
5.	5.	5.	6.	6.	6.	7.	7.	7.	7.
7.	6.	6.	6.	5.	5.	4.	4.	4.	5.
7.	10.	14.	20.	27.	35.	43.	51.	58.	65.
73.	87.	110.	142.	186.	240.	302.	371.	442.	513.
579.	638.	700.	783.	900.	1063.	1282.	1565.	1914.	2380.
2989.	3680.	4393.	5087.	5711.	6190.	6483.	6583.	6484.	6174.
5726.	5241.	4748.	4269.	3826.	3433.	3084.	2772.	2491.	2238.
2008.	1798.	1607.	1432.	1273.	1130.	1001.	887.	786.	697.
645.	619.	594.	571.	548.	526.	505.	485.	466.	448.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6583.	5567.	2511.	1036.	124335.
CMS	186.	158.	71.	29.	3521.
INCHES		2.17	3.92	4.04	4.04
MM		55.18	99.55	102.69	102.69
AC-FT		2761.	4981.	5138.	5138.
THOUS CU M		3405.	6144.	6337.	6337.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

12.	12.	11.	11.	11.	10.	10.	9.	9.	9.
8.	8.	8.	8.	7.	7.	7.	7.	6.	6.
6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
5.	5.	6.	6.	6.	7.	7.	7.	7.	7.
7.	7.	6.	6.	5.	5.	5.	4.	4.	5.
7	10.	15.	21.	28.	36.	44.	53	60	67
76.	91.	114.	148.	193.	249.	314.	385.	459.	533.
601	663.	727.	813.	935.	1104.	1331.	1625.	1988.	2472.
3104.	3822.	4562.	5283.	5930.	6428.	6732.	6837.	6734.	6411.
5947.	5443.	4930.	4433.	3974.	3565.	3202.	2878.	2587.	2324.
2085.	1867.	1668.	1487.	1322.	1173.	1040.	921.	816.	723.
669.	643.	617.	593.	569.	547.	525.	504.	484.	465.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6837.	5781.	2608.	1076.	129117.
CMS	194.	164.	74.	30.	3656.
INCHES		2.26	4.07	4.20	4.20
MM		57.30	103.38	106.64	106.64
AC-FT		2867.	5172.	5335.	5335.
THOUS CU M		3536.	6380.	6581.	6581.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

13.	12.	12.	11.	11.	11.	10.	10.	9.	9.
9.	8.	8.	8.	8.	7.	7.	7.	7.	6.
6.	6.	6.	6.	6.	5.	5.	5.	5.	5.
5.	6.	6.	6.	6.	7.	7.	7.	7.	7.
7.	7.	6.	6.	6.	5.	5.	4.	4.	5.
7.	11.	16.	22.	29.	37.	46.	55.	63.	70.
79.	94.	118.	153.	200.	258.	326.	399.	476.	553.
624.	687.	754.	843.	970.	1145.	1381.	1685.	2061.	2564.
3219.	3963.	4731.	5479.	6150.	6666.	6982.	7090.	6983.	6649.
6167.	5644.	5113.	4597.	4121.	3697.	3321.	2985.	2683.	2410.
2162.	1936.	1730.	1542.	1371.	1216.	1078.	955.	847.	750.
694.	667.	640.	615.	590.	567.	544.	523.	502.	482.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7090.	5995.	2704.	1116.	133899.
CMS	201.	170.	77.	32.	3792.
INCHES		2.34	4.22	4.35	4.35
MM		59.42	107.21	110.59	110.59
AC-FT		2973.	5364.	5533.	5533.
THOUS CU M		3667.	6618.	6825.	6825.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

13.	13.	12.	12.	11.	11.	10.	10.	10.	9.
9.	9.	8.	8.	8.	8.	7.	7.	7.	7.
6.	6.	6.	6.	6.	6.	6.	5.	5.	5.
6.	6.	6.	6.	7.	7.	7.	8.	8.	8.
7.	7.	7.	6.	6.	5.	5.	5.	5.	6.
8.	11.	16.	23.	30.	39.	48.	57.	65.	72.
81.	97.	123.	159.	207.	267.	337.	414.	493.	572.
646.	712.	781.	873.	1004.	1186.	1430.	1746.	2135.	2655.
3334.	4105.	4900.	5674.	6370.	6904.	7231.	7343.	7232.	6886.
6387.	5846.	5296.	4761.	4268.	3829.	3440.	3091.	2779.	2496.
2239.	2005.	1792.	1597.	1420.	1260.	1117.	989.	877.	777.
719.	691.	663.	637.	611.	587.	564.	541.	520.	499.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7343.	6210.	2801.	1156.	138681.
CMS	208.	176.	79.	33.	3927.
INCHES		2.42	4.37	4.51	4.51
MM		61.54	111.04	114.54	114.54
AC-FT		3079.	5555.	5731.	5731.
THOUS CU M		3798.	6853.	7069.	7069.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

14.	13.	13.	12.	12.	11.	11.	10.	10.	10.
9.	9.	9.	8.	8.	8.	8.	7.	7.	7.
7.	6.	6.	6.	6.	6.	6.	6.	6.	6.
6.	6.	6.	7.	7.	7.	8.	8.	8.	8.
8.	7.	7.	6.	6.	6.	5.	5.	5.	6.
8.	12.	17.	23.	31.	40.	49.	58.	67.	75.
84.	101.	127.	164.	214.	277.	349.	428.	510.	592.
668.	736.	808.	903.	1039.	1227.	1479.	1806.	2208.	2747.
3449.	4247.	5069.	5870.	6589.	7142.	7480.	7596.	7482.	7124.
6607.	6047.	5478.	4925.	4415.	3961.	3558.	3198.	2874.	2582.
2317.	2075.	1854.	1652.	1469.	1303.	1155.	1024.	907.	804.

744.	714.	686.	659.	633.	607.	583.	560.	538.	516.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7596.	6424.	2897.	1196.	143463.
CMS	215.	182.	82.	34.	4062.
INCHES		2.51	4.52	4.66	4.66
MM		63.66	114.87	118.49	118.49
AC-FT		3185.	5747.	5928.	5928.
THOUS CU M		3929.	7089.	7312.	7312.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

23.	22.	21.	20.	20.	19.	18.	17.	17.	16.
16.	15.	14.	14.	13.	13.	13.	12.	12.	11.
11.	11.	10.	10.	10.	10.	9.	9.	9.	9.
10.	10.	10.	11.	12.	12.	13.	13.	13.	13.
13.	12.	12.	11.	10.	9.	9.	8.	8.	10.
13.	19.	28.	39.	52.	67.	82.	97.	112.	124.
140.	168.	211.	274.	357.	461.	581.	713.	850.	987.
1114.	1227.	1346.	1506.	1732.	2045.	2466.	3010.	3681.	4578.
5748.	7078.	8449.	9784.	10982.	11903.	12467.	12860.	12470.	11873.
11012.	10079.	9130.	8209.	7358.	6602.	5930.	5330.	4791.	4303.
3861.	3458.	3090.	2754.	2448.	2172.	1925.	1706.	1512.	1340.
1240.	1191.	1143.	1098.	1054.	1012.	972.	933.	896.	861.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12660.	10706.	4829.	1993.	239105.
CMS	358.	303.	137.	56.	6771.
INCHES		4.18	7.54	7.77	7.77
MM		106.11	191.45	197.48	197.48
AC-FT		5309.	9578.	9880.	9880.
THOUS CU M		6548.	11815.	12187.	12187.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

46.	44.	42.	41.	39.	38.	36.	35.	34.	32.
31.	30.	29.	28.	27.	26.	25.	24.	24.	23.
22.	22.	21.	20.	20.	19.	19.	19.	19.	19.
19.	20.	21.	22.	23.	24.	25.	26.	26.	26.
26.	24.	23.	22.	20.	19.	17.	16.	16.	19.
26.	38.	56.	78.	104.	133.	164.	195.	223.	249.
281.	335.	423.	548.	715.	922.	1163.	1426.	1700.	1973.
2228.	2454.	2693.	3011.	3463.	4090.	4931.	6019.	7361.	9156.
11496.	14155.	16898.	19567.	21964.	23806.	24934.	25320.	24940.	23745.
22025.	20158.	18261.	16418.	14717.	13205.	11861.	10660.	9581.	8607.
7722.	6915.	6179.	5508.	4897.	4345.	3850.	3412.	3023.	2679.
2480.	2381.	2286.	2196.	2108.	2025.	1944.	1867.	1793.	1721.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25320.	21412.	9658.	3985.	478210.
CMS	717.	606.	273.	113.	13541.
INCHES		8.35	15.07	15.55	15.55
MM		212.22	382.89	394.96	394.96
AC-FT		10618.	19157.	19761.	19761.
THOUS CU M		13097.	23629.	24374.	24374.

********** ********** ********** ********** **********

SUB-AREA RUNOFF COMPUTATION

INFLOW HYDROGRAPH - SUBWATERSHED NO. 2

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	0	0	0	0	0	1	0	0

HYDROGRAPH DATA

IHYDG	IUHG	TAREA	SNAP	TRSDA	TRSPC	RATIO	ISNOW	ISAME	LOCAL
1	1	13.03	0.00	13.03	0.00	0.000	0	1	0

PRECIP DATA

SPFE	PMS	R6	R12	R24	R48	R72	R96
0.00	19.30	86.00	100.00	112.00	119.00	0.00	0.00

TRSPC COMPUTED BY THE PROGRAM IS 0.809

LOSS DATA

LROPT	STRKR	DLTKR	RTIOL	ERAIN	STRKS	RTIOK	STRTL	CNSTL	ALSMX	RTIMP
0	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.10	0.00	0.01

UNIT HYDROGRAPH DATA

TP= 3.87 CP=0.63 NTA= 0

RECESSION DATA

STRTQ= -2.00 QRCSN= -0.10 RTIOR= 1.50

APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 8.75 AND R= 7.04 INTERVALS

UNIT HYDROGRAPH 42 END-OF-PERIOD ORDINATES, LAG= 3.87 HOURS, CP= 0.63 VOL= 1.00

61.	225.	450.	705.	968.	1189.	1332.	1394.	1350.	1211.
1050.	911.	790.	686.	595.	516.	447.	388.	337.	292.
253.	220.	191.	165.	143.	124.	108.	94.	81.	70.
61.	53.	46.	40.	35.	30.	26.	23.	20.	17.
15.	13.								

0 END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	25.	1.02	6.30	61	0.18	0.13	0.05	161.
1.01	1.00	2	0.00	0.00	0.00	24.	1.02	7.00	62	0.18	0.13	0.05	197.
1.01	1.30	3	0.00	0.00	0.00	23.	1.02	7.30	63	0.18	0.13	0.05	258.
1.01	2.00	4	0.00	0.00	0.00	22.	1.02	8.00	64	0.18	0.13	0.05	349.
1.01	2.30	5	0.00	0.00	0.00	21.	1.02	8.30	65	0.18	0.13	0.05	471.
1.01	3.00	6	0.00	0.00	0.00	21.	1.02	9.00	66	0.18	0.13	0.05	618.
1.01	3.30	7	0.00	0.00	0.00	20.	1.02	9.30	67	0.18	0.13	0.05	782.
1.01	4.00	8	0.00	0.00	0.00	19.	1.02	10.00	68	0.18	0.13	0.05	952.
1.01	4.30	9	0.00	0.00	0.00	18.	1.02	10.30	69	0.18	0.13	0.05	1117.
1.01	5.00	10	0.00	0.00	0.00	18.	1.02	11.00	70	0.18	0.13	0.05	1265.
1.01	5.30	11	0.00	0.00	0.00	17.	1.02	11.30	71	0.18	0.13	0.05	1393.
1.01	6.00	12	0.00	0.00	0.00	16.	1.02	12.00	72	0.18	0.13	0.05	1504.
1.01	6.30	13	0.01	0.00	0.01	16.	1.02	12.30	73	0.67	0.62	0.05	1630.
1.01	7.00	14	0.01	0.00	0.01	15.	1.02	13.00	74	0.67	0.62	0.05	1824.
1.01	7.30	15	0.01	0.00	0.01	15.	1.02	13.30	75	0.81	0.76	0.05	2123.
1.01	8.00	16	0.01	0.00	0.01	14.	1.02	14.00	76	0.81	0.76	0.05	2563.
1.01	8.30	17	0.01	0.00	0.01	14.	1.02	14.30	77	1.01	0.96	0.05	3164.
1.01	9.00	18	0.01	0.00	0.01	13.	1.02	15.00	78	1.01	0.96	0.05	3933.
1.01	9.30	19	0.01	0.00	0.01	13.	1.02	15.30	79	1.22	1.18	0.05	4860.
1.01	10.00	20	0.01	0.00	0.01	13.	1.02	16.00	80	3.88	3.83	0.05	6090.

1.01	10.30	21	0.01	0.00	0.01	12.	1.02	16.30	81	0.94	0.89	0.05	7671.
1.01	11.00	22	0.01	0.00	0.01	12.	1.02	17.00	82	0.94	0.89	0.05	9405.
1.01	11.30	23	0.01	0.00	0.01	12.	1.02	17.30	83	0.74	0.69	0.05	11139.
1.01	12.00	24	0.01	0.00	0.01	11.	1.02	18.00	84	0.74	0.69	0.05	12756.
1.01	12.30	25	0.04	0.00	0.04	11.	1.02	18.30	85	0.09	0.04	0.05	14045.
1.01	13.00	26	0.04	0.00	0.04	11.	1.02	19.00	86	0.09	0.04	0.05	14820.
1.01	13.30	27	0.05	0.00	0.05	11.	1.02	19.30	87	0.09	0.04	0.05	15034.
1.01	14.00	28	0.05	0.00	0.05	10.	1.02	20.00	88	0.09	0.04	0.05	14630.
1.01	14.30	29	0.06	0.00	0.06	11.	1.02	20.30	89	0.09	0.04	0.05	13680.
1.01	15.00	30	0.06	0.00	0.06	11.	1.02	21.00	90	0.09	0.04	0.05	12466.
1.01	15.30	31	0.08	0.00	0.08	11.	1.02	21.30	91	0.09	0.04	0.05	11190.
1.01	16.00	32	0.24	0.00	0.24	11.	1.02	22.00	92	0.09	0.04	0.05	9921.
1.01	16.30	33	0.06	0.00	0.06	12.	1.02	22.30	93	0.09	0.04	0.05	8730.
1.01	17.00	34	0.06	0.00	0.06	13.	1.02	23.00	94	0.09	0.04	0.05	7671.
1.01	17.30	35	0.05	0.00	0.05	14.	1.02	23.30	95	0.09	0.04	0.05	6753.
1.01	18.00	36	0.05	0.00	0.05	15.	1.03	0.00	96	0.09	0.04	0.05	5956.
1.01	18.30	37	0.01	0.00	0.01	15.	1.03	0.30	97	0.00	0.00	0.00	5262.
1.01	19.00	38	0.01	0.00	0.01	15.	1.03	1.00	98	0.00	0.00	0.00	4653.
1.01	19.30	39	0.01	0.00	0.01	15.	1.03	1.30	99	0.00	0.00	0.00	4113.
1.01	20.00	40	0.01	0.00	0.01	15.	1.03	2.00	100	0.00	0.00	0.00	3630.
1.01	20.30	41	0.01	0.00	0.01	14.	1.03	2.30	101	0.00	0.00	0.00	3196.
1.01	21.00	42	0.01	0.00	0.01	13.	1.03	3.00	102	0.00	0.00	0.00	2804.
1.01	21.30	43	0.01	0.00	0.01	12.	1.03	3.30	103	0.00	0.00	0.00	2450.
1.01	22.00	44	0.01	0.00	0.01	11.	1.03	4.00	104	0.00	0.00	0.00	2132.
1.01	22.30	45	0.01	0.00	0.01	10.	1.03	4.30	105	0.00	0.00	0.00	1849.
1.01	23.00	46	0.01	0.00	0.01	9.	1.03	5.00	106	0.00	0.00	0.00	1603.
1.01	23.30	47	0.01	0.00	0.01	9.	1.03	5.30	107	0.00	0.00	0.00	1471.
1.02	0.00	48	0.01	0.00	0.01	8.	1.03	6.00	108	0.00	0.00	0.00	1413.
1.02	0.30	49	0.06	0.01	0.05	8.	1.03	6.30	109	0.00	0.00	0.00	1357.
1.02	1.00	50	0.06	0.01	0.05	11.	1.03	7.00	110	0.00	0.00	0.00	1303.
1.02	1.30	51	0.06	0.01	0.05	16.	1.03	7.30	111	0.00	0.00	0.00	1251.
1.02	2.00	52	0.06	0.01	0.05	25.	1.03	8.00	112	0.00	0.00	0.00	1201.
1.02	2.30	53	0.06	0.01	0.05	37.	1.03	8.30	113	0.00	0.00	0.00	1154.
1.02	3.00	54	0.06	0.01	0.05	52.	1.03	9.00	114	0.00	0.00	0.00	1108.
1.02	3.30	55	0.06	0.01	0.05	69.	1.03	9.30	115	0.00	0.00	0.00	1064.
1.02	4.00	56	0.06	0.01	0.05	86.	1.03	10.00	116	0.00	0.00	0.00	1022.
1.02	4.30	57	0.06	0.01	0.05	104.	1.03	10.30	117	0.00	0.00	0.00	981.
1.02	5.00	58	0.06	0.01	0.05	119.	1.03	11.00	118	0.00	0.00	0.00	942.
1.02	5.30	59	0.06	0.01	0.05	132.	1.03	11.30	119	0.00	0.00	0.00	905.
1.02	6.00	60	0.06	0.01	0.05	144.	1.03	12.00	120	0.00	0.00	0.00	869.
									SUM	18.58	15.13	3.46	260350.
										(472.)	(384.)	(88.)	(7372.28)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15034.	12274.	5236.	2166.	259903.
CMS	426.	348.	148.	61.	7360.
INCHES		8.76	14.95	15.46	15.46
MM		222.57	379.80	392.74	392.74
AC-FT		6086.	10386.	10740.	10740.
THOUS CU M		7507.	12811.	13247.	13247.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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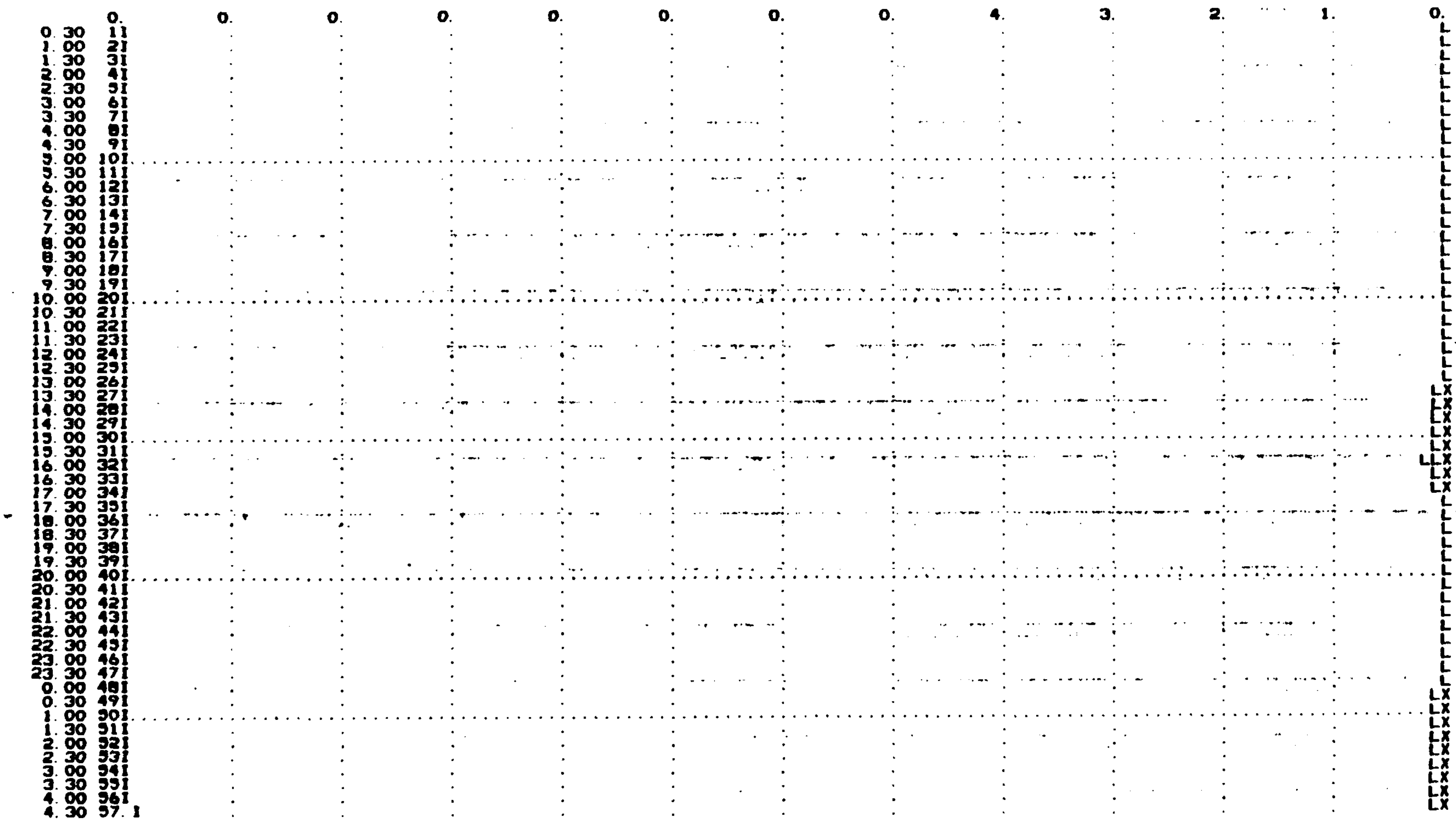
PRECIP(L) AND EXCESS(X)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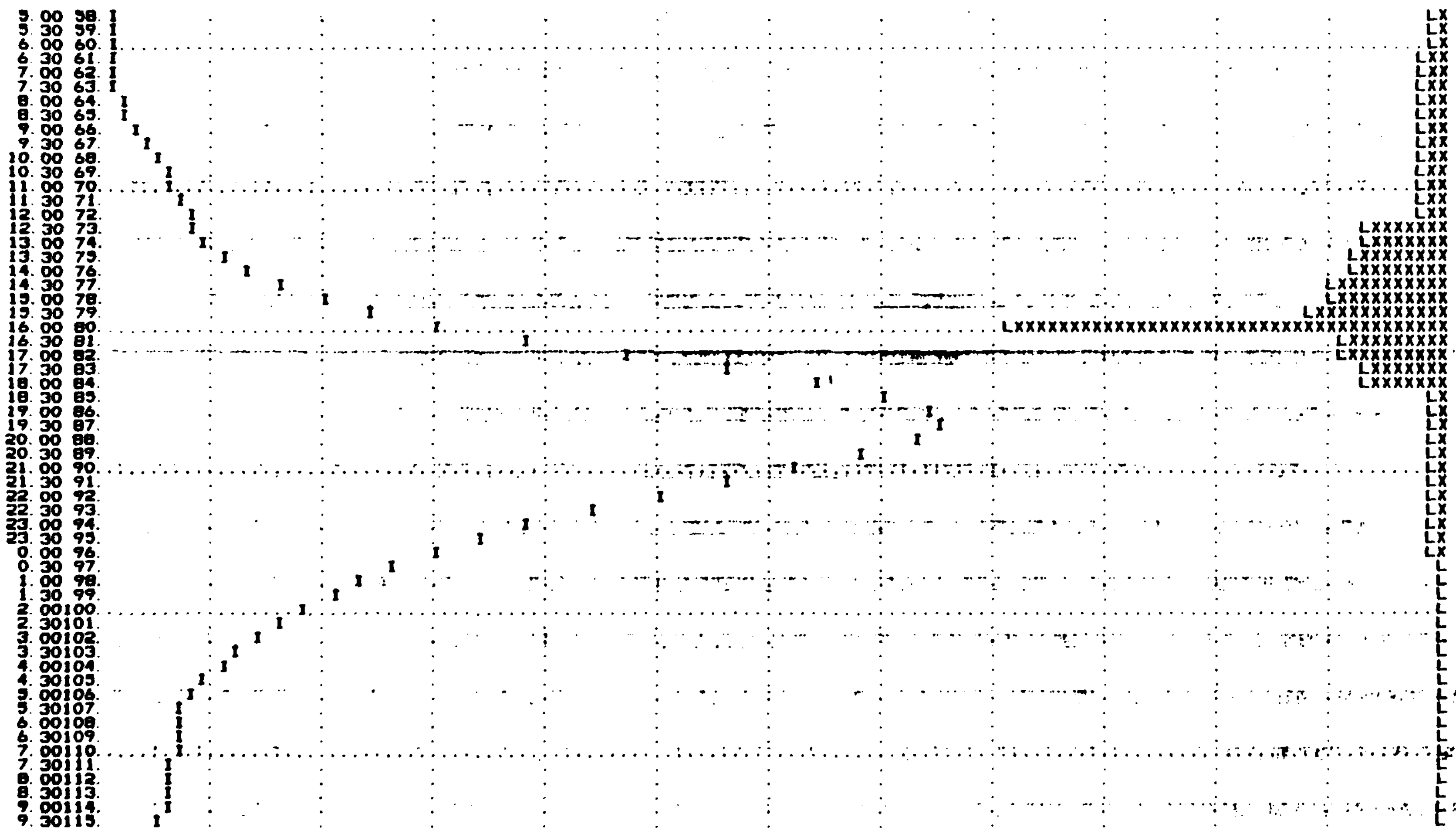
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10 00116     I
10 30117     I
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12 00120 ...I
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OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

5.	5.	5.	4.	4.	4.	4.	4.	4.	4.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	3.	3.	3.	3.	3.	3.	3.
3.	3.	2.	2.	2.	2.	2.	2.	2.	2.
3.	5.	7.	10.	14.	17.	21.	24.	26.	29.
32.	39.	52.	70.	94.	124.	156.	190.	223.	253.
279.	301.	326.	369.	425.	513.	633.	787.	972.	1218.
1534.	1881.	2228.	2551.	2809.	2964.	3007.	2926.	2736.	2493.
2238.	1984.	1746.	1534.	1351.	1191.	1052.	931.	823.	726.
639.	561.	490.	426.	370.	321.	294.	283.	271.	261.
250.	240.	231.	222.	213.	204.	196.	188.	181.	174.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3007.	2455.	1047.	433.	51981.
CMS	85.	70.	30.	12.	1472.
INCHES		1.75	2.99	3.09	3.09
MM		44.51	75.96	78.59	78.59
AC-FT		1217.	2077.	2148.	2148.
THOUS CU M		1501.	2562.	2649.	2649.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

6.	6.	6.	6.	5.	5.	5.	5.	5.	4.
4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	2.	2.	2.	2.	3.
4.	6.	9.	13.	17.	22.	26.	30.	33.	36.
40.	49.	65.	87.	118.	154.	175.	238.	279.	316.
348.	376.	408.	456.	531.	641.	791.	983.	1215.	1522.
1918.	2351.	2785.	3189.	3511.	3705.	3739.	3657.	3420.	3116.
2797.	2480.	2183.	1918.	1688.	1489.	1316.	1163.	1028.	908.
779.	701.	612.	533.	462.	401.	368.	353.	337.	326.
313.	300.	288.	277.	266.	255.	245.	235.	226.	217.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3759.	3068.	1309.	541.	64976.
CMS	106.	87.	37.	15.	1840.
INCHES		2.19	3.74	3.87	3.87
MM		55.64	94.95	98.19	98.19
AC-FT		1522.	2596.	2685.	2685.
THOUS CU M		1877.	3203.	3312.	3312.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

7.	6.	6.	6.	6.	5.	5.	5.	5.	5.

FLAHERTY GIAVARA ASSOCIATES, P.C. PAGE 0016

4.	4.	4.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	4.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	2.	2.	2.	2.	3.
4.	6.	10.	13.	18.	22.	27.	31.	34.	37.
42.	51.	67.	91.	122.	161.	203.	248.	290.	329.
362.	391.	424.	474.	552.	666.	823.	1023.	1264.	1583.
1995.	2445.	2896.	3317.	3652.	3853.	3909.	3804.	3557.	3241.
2909.	2580.	2270.	1995.	1756.	1549.	1368.	1210.	1069.	944.
831.	729.	637.	554.	481.	417.	383.	367.	353.	339.
325.	312.	300.	288.	277.	266.	255.	245.	235.	226.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3909.	3191.	1361.	563.	67575.
CMS	111.	90.	39.	16.	1913.
INCHES		2.28	3.89	4.02	4.02
MM		57.87	98.75	102.11	102.11
AC-FT		1582.	2700.	2792.	2792.
THOUS CU M		1952.	3331.	3444.	3444.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

7.	6.	6.	6.	6.	6.	5.	5.	5.	5.
5.	4.	4.	4.	4.	4.	4.	4.	4.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	2.	2.	2.	3.
4.	7.	10.	14.	19.	23.	28.	32.	36.	39.
44.	53.	70.	94.	127.	167.	211.	257.	302.	341.
376.	406.	440.	492.	574.	692.	854.	1062.	1312.	1644.
2071.	2539.	3008.	3444.	3792.	4002.	4059.	3950.	3694.	3366.
3021.	2679.	2357.	2071.	1823.	1608.	1421.	1256.	1110.	980.
863.	737.	661.	578.	499.	433.	397.	381.	366.	352.
338.	324.	311.	299.	287.	276.	265.	254.	244.	235.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4059.	3314.	1414.	585.	70174.
CMS	115.	94.	40.	17.	1987.
INCHES		2.37	4.04	4.17	4.17
MM		60.09	102.55	106.04	106.04
AC-FT		1643.	2804.	2900.	2900.
THOUS CU M		2027.	3459.	3577.	3577.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

7.	7.	6.	6.	6.	6.	6.	5.	5.	5.
5.	5.	4.	4.	4.	4.	4.	4.	4.	4.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	4.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	2.	2.	2.	3.
4.	7.	10.	14.	19.	24.	29.	33.	37.	40.
45.	55.	72.	98.	132.	173.	219.	267.	313.	354.
390.	421.	456.	511.	595.	718.	886.	1101.	1361.	1709.
2148.	2633.	3119.	3572.	[illegible]	4150.	4210.	4096.	3830.	3490.
3133.	2778.	2444.	2148.	[illegible]	1668.	1473.	1303.	1152.	1017.
895.	785.	686.	597.	[illegible]	449.	412.	396.	380.	365.
350.	336.	323.	310.	298.	286.	275.	264.	253.	243.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4210.	3437.	1466.	606.	72773.
CMS	119.	97.	42.	17.	2061.
INCHES		2.45	4.19	4.33	4.33
MM		62.32	106.34	109.97	109.97
AC-FT		1704.	2908.	3007.	3007.
THOUS CU M		2102.	3587.	3709.	3709.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

7.	7.	7.	6.	6.	6.	6.	6.	5.	5.
5.	5.	5.	4.	4.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	2.	2.	2.	3.
5.	7.	11.	15.	20.	25.	30.	34.	38.	42.
47.	57.	75.	101.	137.	179.	227.	276.	324.	367.
404.	436.	473.	529.	616.	743.	918.	1141.	1409.	1766.
2225.	2728.	3230.	3699.	4073.	4298.	4360.	4243.	3967.	3615.
3245.	2877.	2532.	2225.	1958.	1727.	1526.	1349.	1193.	1053.
927.	813.	710.	618.	536.	465.	427.	410.	393.	378.
363.	348.	335.	321.	309.	296.	284.	273.	262.	252.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4360.	3559.	1518.	628.	75372.
CMS	123.	101.	43.	18.	2134.
INCHES		2.54	4.34	4.48	4.48
MM		64.55	110.14	113.90	113.90
AC-FT		1765.	3012.	3115.	3115.
THOUS CU M		2177.	3715.	3842.	3842.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

8.	7.	7.	7.	6.	6.	6.	6.	6.	5.
5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	4.	4.	4.	4.	5.	5.	5.	4.
4.	4.	4.	3.	3.	3.	3.	2.	2.	3.
5.	7.	11.	16.	21.	26.	31.	36.	40.	43.
48.	59.	77.	105.	141.	185.	235.	286.	335.	379.
410.	451.	489.	547.	637.	769.	949.	1180.	1458.	1827.
2301.	2822.	3342.	3827.	4214.	4446.	4510.	4389.	4104.	3740.
3357.	2976.	2619.	2301.	2026.	1787.	1579.	1396.	1234.	1089.
959.	841.	735.	639.	555.	481.	441.	424.	407.	391.
375.	360.	346.	332.	319.	306.	294.	283.	271.	261.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4510.	3682.	1571.	650.	77971.
CMS	128.	104.	44.	18.	2208.
INCHES		2.63	4.49	4.64	4.64
MM		66.77	113.94	117.82	117.82
AC-FT		1826.	3116.	3222.	3222.
THOUS CU M		2252.	3843.	3974.	3974.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

13.	12.	12.	11.	11.	10.	10.	10.	9.	9.
9.	8.	8.	8.	7.	7.	7.	7.	7.	6.

6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
5.	6.	6.	6.	7.	7.	8.	8.	8.	7.
7.	7.	6.	6.	5.	5.	4.	4.	4.	5.
8.	12.	18.	26.	34.	43.	52.	59.	66.	72.
81.	98.	129.	173.	235.	309.	391.	476.	559.	632.
696.	732.	815.	912.	1062.	1282.	1582.	1967.	2430.	3045.
3836.	4703.	5569.	6378.	7023.	7410.	7517.	7315.	6840.	6233.
5593.	4961.	4365.	3836.	3376.	2978.	2631.	2326.	2056.	1815.
1598.	1402.	1225.	1066.	925.	801.	736.	706.	678.	651.
626.	601.	577.	554.	532.	511.	490.	471.	452.	434.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7517.	6137.	2618.	1083.	129951.
CMS	213.	174.	74.	31.	3680.
INCHES		4.38	7.48	7.73	7.73
MM		111.28	189.90	196.37	196.37
AC-FT		3043.	5193.	5370.	5370.
THOUS CU M		3754.	6405.	6624.	6624.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

25.	24.	23.	22.	21.	21.	20.	19.	18.	18.
17.	16.	16.	15.	15.	14.	14.	13.	13.	13.
12.	12.	12.	11.	11.	11.	11.	10.	11.	11.
11.	11.	12.	13.	14.	15.	15.	15.	15.	15.
14.	13.	12.	11.	10.	9.	9.	8.	8.	11.
16.	25.	37.	52.	69.	86.	104.	119.	132.	144.
161.	197.	258.	349.	471.	618.	782.	952.	1117.	1265.
1393.	1504.	1630.	1824.	2125.	2563.	3164.	3733.	4860.	6090.
7671.	9405.	11139.	12756.	14045.	14820.	15034.	14630.	13680.	12466.
11190.	9921.	8730.	7671.	6753.	5956.	5262.	4653.	4113.	3630.
3196.	2804.	2450.	2132.	1849.	1603.	1471.	1413.	1357.	1303.
1251.	1201.	1154.	1108.	1064.	1022.	981.	942.	905.	869.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15034.	12274.	5236.	2166.	259902.
CMS	426.	348.	148.	61.	7360.
INCHES		8.76	14.95	15.46	15.46
MM		222.57	379.80	392.74	392.74
AC-FT		6086.	10386.	10740.	10740.
THOUS CU M		7507.	12811.	13247.	13247.

**********   **********   **********   **********   **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

14.	14.	13.	13.	12.	12.	11.	11.	10.	10.
10.	9.	9.	9.	8.	8.	8.	8.	7.	7.
7.	7.	7.	6.	6.	6.	6.	6.	6.	6.

6.	6.	7.	7.	7.	8.	8.	8.	8.	8.
8.	8.	7.	7.	6.	6.	5.	5.	5.	6.
8.	13.	18.	26.	35.	44.	54.	63.	71.	79.
88.	106.	136.	179.	237.	308.	389.	476.	563.	648.
724.	792.	865.	967.	1118.	1331.	1619.	1991.	2444.	3049.
3834.	4712.	5607.	6465.	7202.	7725.	7994.	7990.	7724.	7242.
6643.	6016.	5398.	4818.	4294.	3832.	3425.	3063.	2739.	2447.
2184.	1944.	1726.	1528.	1349.	1189.	1064.	965.	876.	796.
746.	717.	688.	661.	634.	609.	585.	562.	539.	518.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7994.	6731.	2978.	1230.	147623.
CMS	226.	191.	84.	35.	4180.
INCHES		1.70	3.01	3.10	3.10
MM		43.13	76.35	78.84	78.84
AC-FT		3338.	5908.	6100.	6100.
THOUS CU M		4117.	7287.	7524.	7524.

DVF

STATION 1

```
                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.     1000.     2000.     3000.     4000.     5000.     6000.     7000.     8000.     0.     0.     0.     0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I.............................................................................................................
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 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I.............................................................................................................
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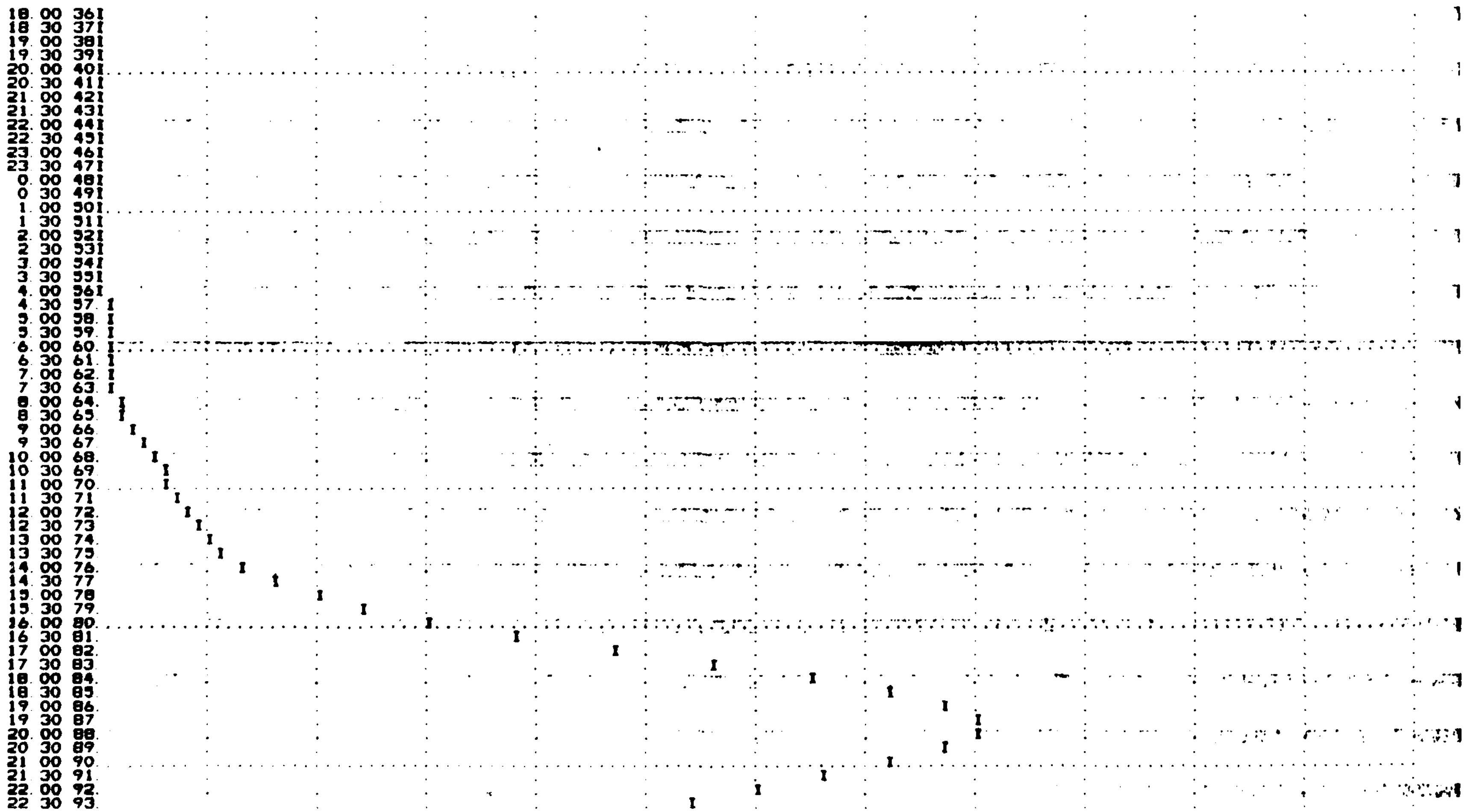
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AD-A109 795 FLAHERTY-GIAVARA ASSOCIATES NEW HAVEN CT F/G 13/13
NATIONAL DAM SAFETY PROGRAM. OTSEGO LAKE DAM (INVENTORY NUMBER --ETC(U)
JUL 81 H C FLAHERTY DACW51-81-C-0006

UNCLASSIFIED NL

2 of 7
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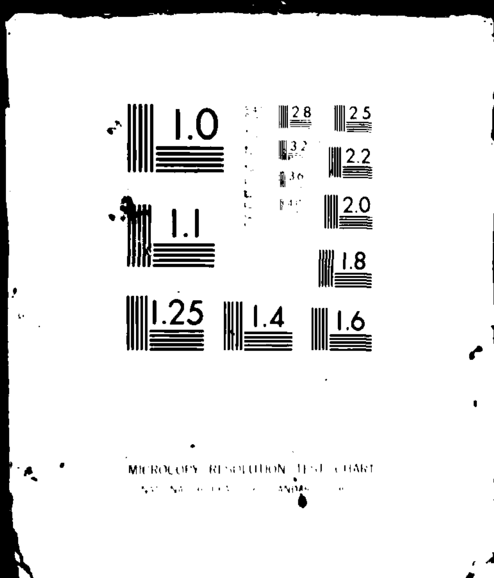
A109795

2 OF 7

AD-A109795



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OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

18.	17.	16.	16.	15.	15.	14.	13.	13.	13.
12.	12.	11.	11.	10.	10.	10.	9.	9.	9.
9.	8.	8.	8.	8.	8.	7.	7.	7.	7.
8.	8.	8.	9.	9.	10.	10.	10.	10.	10.
10.	9.	9.	8.	8.	7.	6.	6.	6.	7.
11.	16.	23.	32.	43.	55.	67.	78.	89.	98.
111.	133.	170.	224.	296.	385.	486.	595.	704.	810.
905.	990.	1081.	1209.	1397.	1663.	2024.	2488.	3055.	3811.
4792.	5890.	7009.	8081.	9002.	9657.	9992.	9988.	9655.	9053.
8304.	7520.	6748.	6022.	5367.	4790.	4281.	3828.	3423.	3059.
2730.	2430.	2157.	1910.	1687.	1487.	1330.	1206.	1095.	996.
933.	896.	860.	826.	793.	762.	731.	702.	674.	648.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	9992.	8414.	3723.	1538.	184528.
CMS	283.	238.	105.	44.	5225.
INCHES		2.12	3.76	3.88	3.88
MM		53.92	95.44	98.54	98.54
AC-FT		4172.	7389.	7625.	7625.
THOUS CU M		5146.	9109.	9405.	9405.

OVF

STATION 1

```
                              INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
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12.00  24I
12.30  25I
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14.00  28I
14.30  29I
15.00  30I
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16.30  33I
17.00  34I
17.30  35I
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19.00  38I
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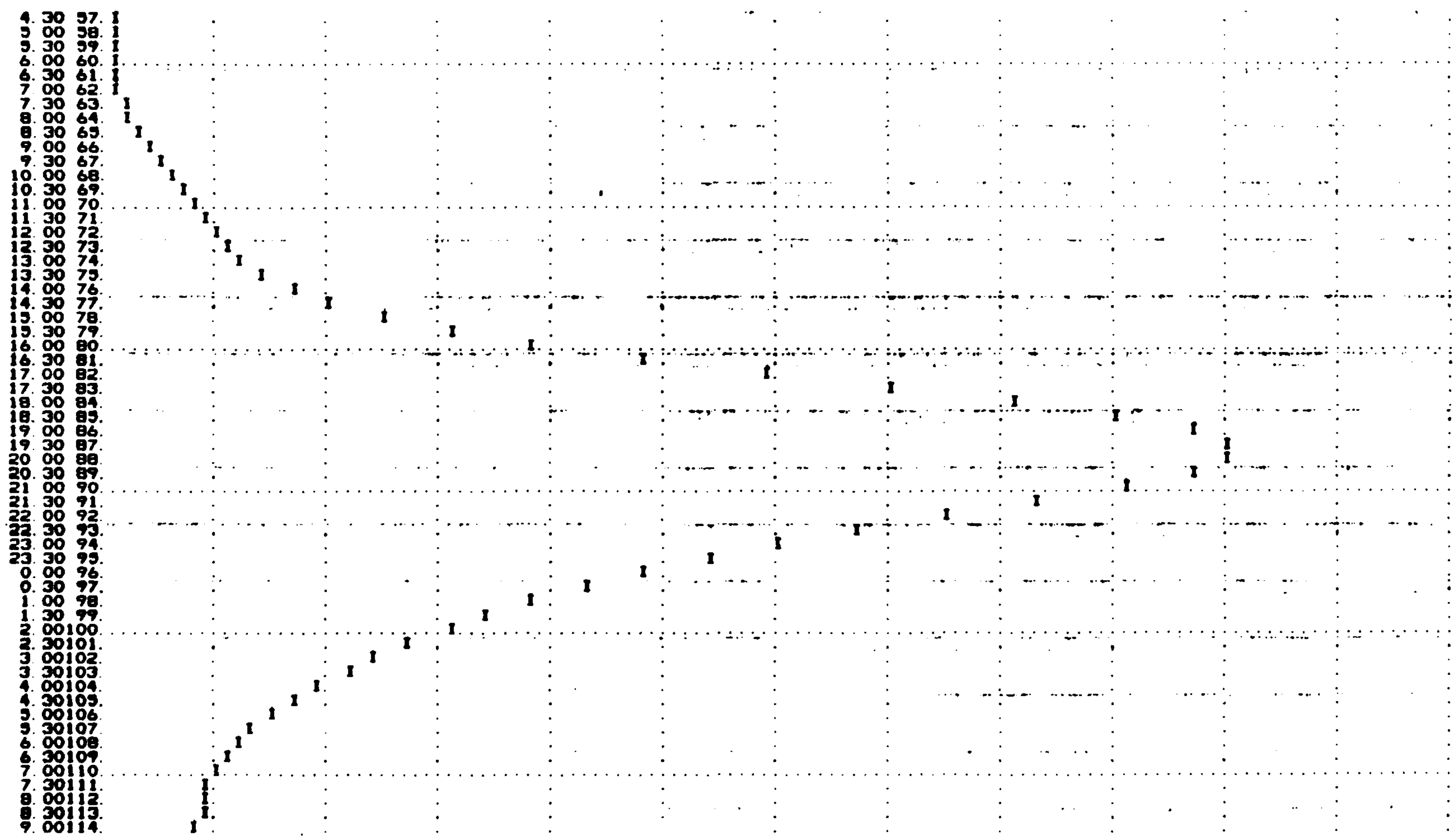
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OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

18.	18.	17.	16.	16.	15.	15.	14.	14.	13.
13.	12.	12.	11.	11.	10.	10.	10.	10.	9.
9.	9.	8.	8.	8.	8.	8.	8.	8.	8.
8.	8.	9.	9.	10.	10.	11.	11.	11.	11.
10.	10.	9.	8.	8.	7.	7.	6.	6.	8.
11.	16.	24.	34.	45.	57.	70.	82.	92.	102.
115.	138.	177.	233.	308.	400.	506.	618.	733.	842.
941.	1029.	1124.	1257.	1453.	1730.	2105.	2588.	3178.	3964.
4984.	6126.	7290.	8404.	9362.	10043.	10392.	10387.	10041.	9415.
8636.	7821.	7018.	6263.	5582.	4982.	4452.	3981.	3560.	3182.
2839.	2527.	2243.	1986.	1754.	1546.	1384.	1254.	1139.	1035.
970.	931.	894.	859.	825.	792.	761.	730.	701.	673.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	10392.	8750.	3872.	1599.	191909.
CMS	294.	248.	110.	45.	5434.
INCHES		2.21	3.91	4.03	4.03
MM		56.08	99.25	102.49	102.49
AC-FT		4339.	7680.	7930.	7930.
THOUS CU M		5352.	9473.	9782.	9782.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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           0.   1000.  2000.  3000.  4000.  5000.  6000.  7000.  8000.  9000.  10000.  11000.   0.
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 1.00  2I
 1.30  3I
 2.00  4I
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 4.30  9I
 5.00 10I.................................................................................
 5.30 11I
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 9.30 19I
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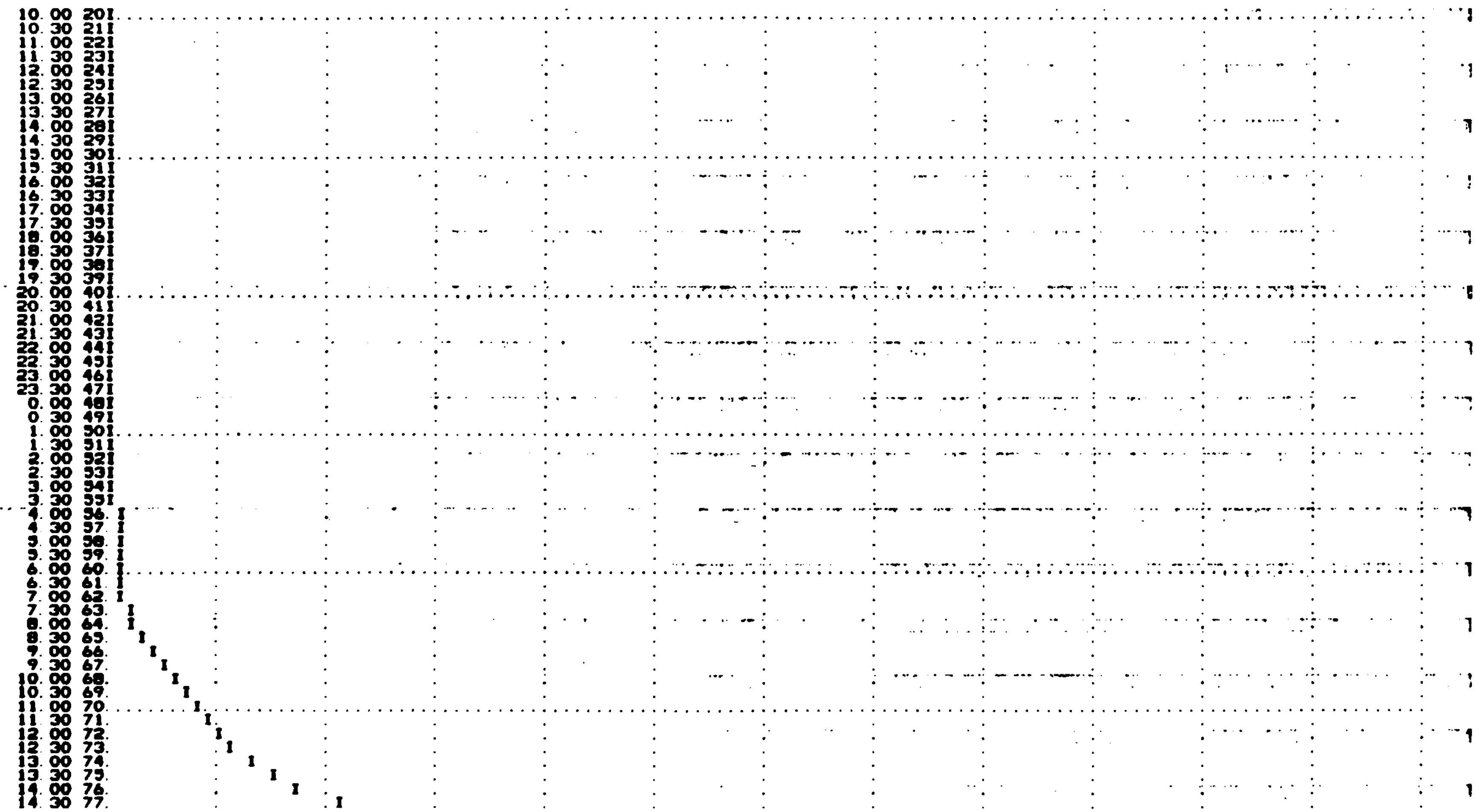
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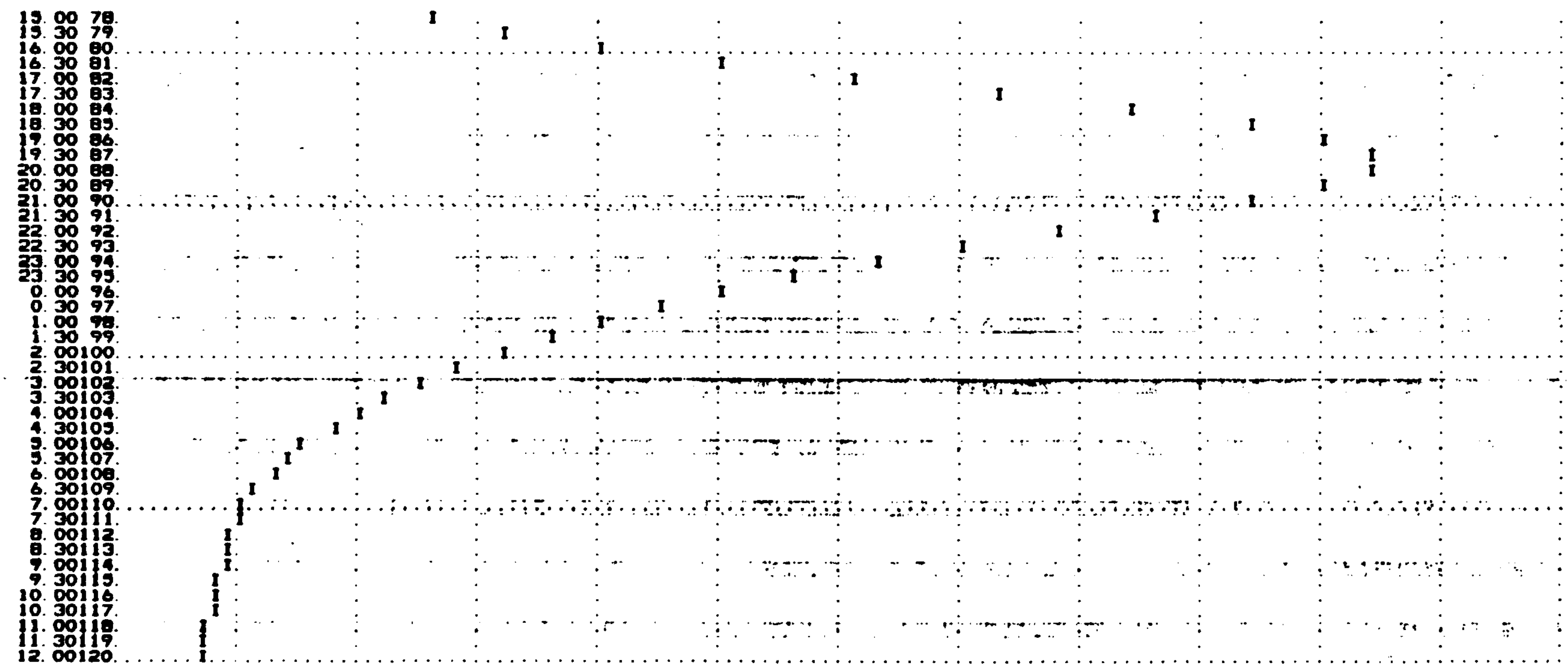

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

19.	18.	18.	17.	16.	16.	15.	15.	14.	14.
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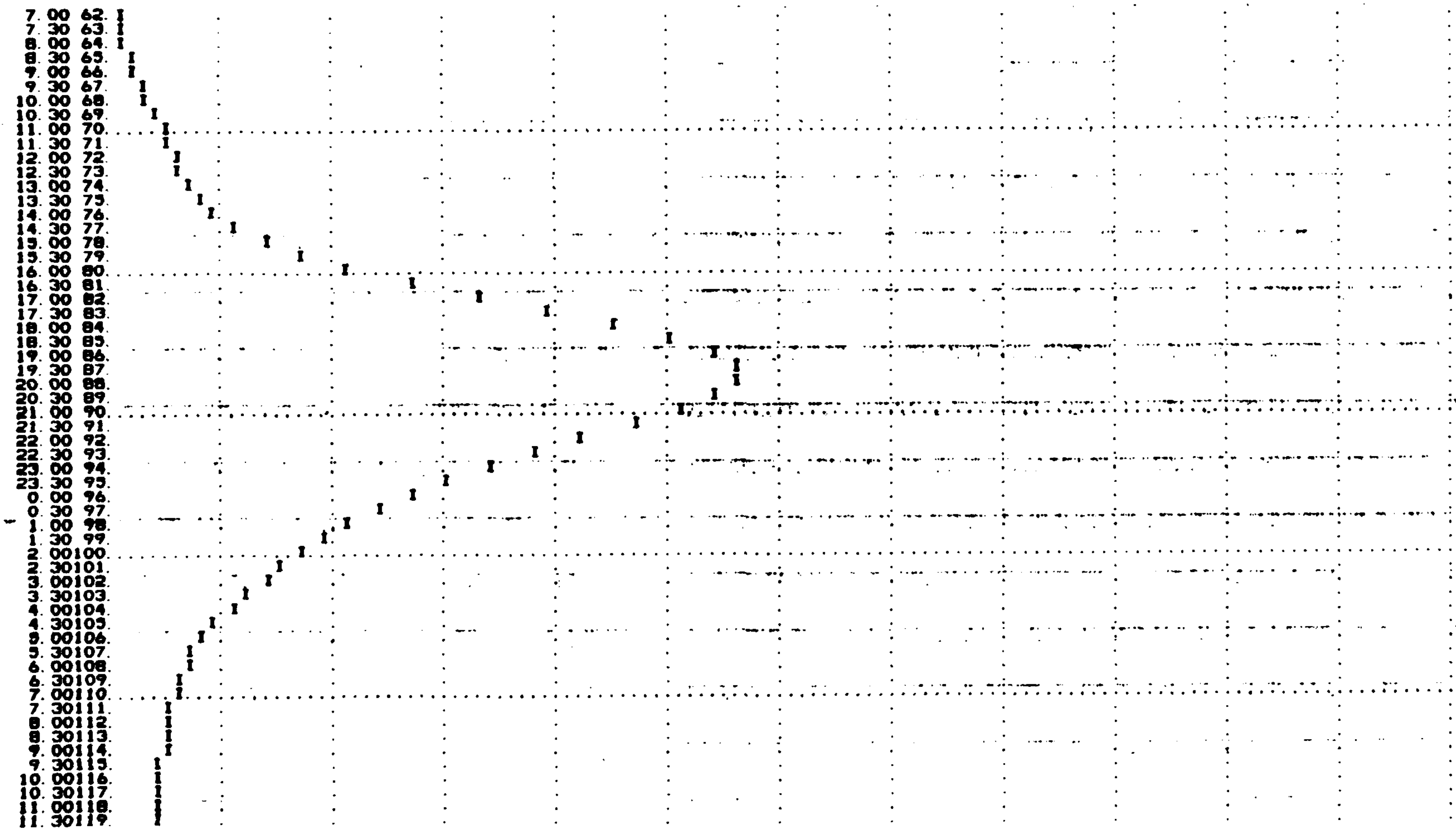
9.	9.	9.	9.	8.	8.	8.	8.	8.	8.
8.	8.	9.	9.	10.	10.	11.	11.	11.	11.
11.	10.	9.	9.	8.	8.	7.	6.	7.	8.
11.	17.	25.	35.	47.	59.	72.	85.	96.	106.
119.	144.	184.	242.	320.	416.	525.	642.	761.	874.
978.	1069.	1167.	1305.	1509.	1796.	2186.	2687.	3300.	4116.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10.00116.
10.30117.
11.00118.
11.30119.

12.00120 . . . I . . .

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

21	20.	17.	18.	18.	17.	16.	16.	15.	15.
14	13.	13.	13.	12.	12.	11.	11.	11.	10.
10.	10.	9.	9.	9.	9.	9.	8.	8.	9.
9.	9.	9.	10.	11.	11.	12.	12.	12.	12.
11.	11.	10.	9.	9.	8.	7.	7.	7.	9.
12.	18.	27.	38.	50.	64.	78.	91.	103.	114.
128.	134.	197.	260.	344.	447.	364.	690.	817.	939.
1050.	1148.	1254.	1402.	1621.	1929.	2348.	2886.	3544.	4421.
8897.	6833.	8131.	9374.	10443.	11202.	11591.	11586.	11200.	10501.
9632.	8723.	7827.	6986.	6225.	5557.	4966.	4441.	3971.	3549.
3166.	2819.	2502.	2215.	1956.	1725.	1543.	1399.	1270.	1155.
1082.	1039.	998.	958.	920.	883.	848.	815.	782.	751.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	11591.	9760.	4319.	1784.	214053.
CMS	328.	276.	122.	51.	6061.
INCHES		2.46	4.36	4.50	4.50
MM		62.55	110.71	114.31	114.31
AC-FT		4840.	8566.	8845.	8845.
THOUS CU M		5970.	10566.	10910.	10910.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.30     3I
 2.00     4I
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 3.30     7I
 4.00     8I
 4.30     9I
 5.00    10I
 5.30    11I
 6.00    12I
 6.30    13I
 7.00    14I
 7.30    15I
 8.00    16I
 8.30    17I
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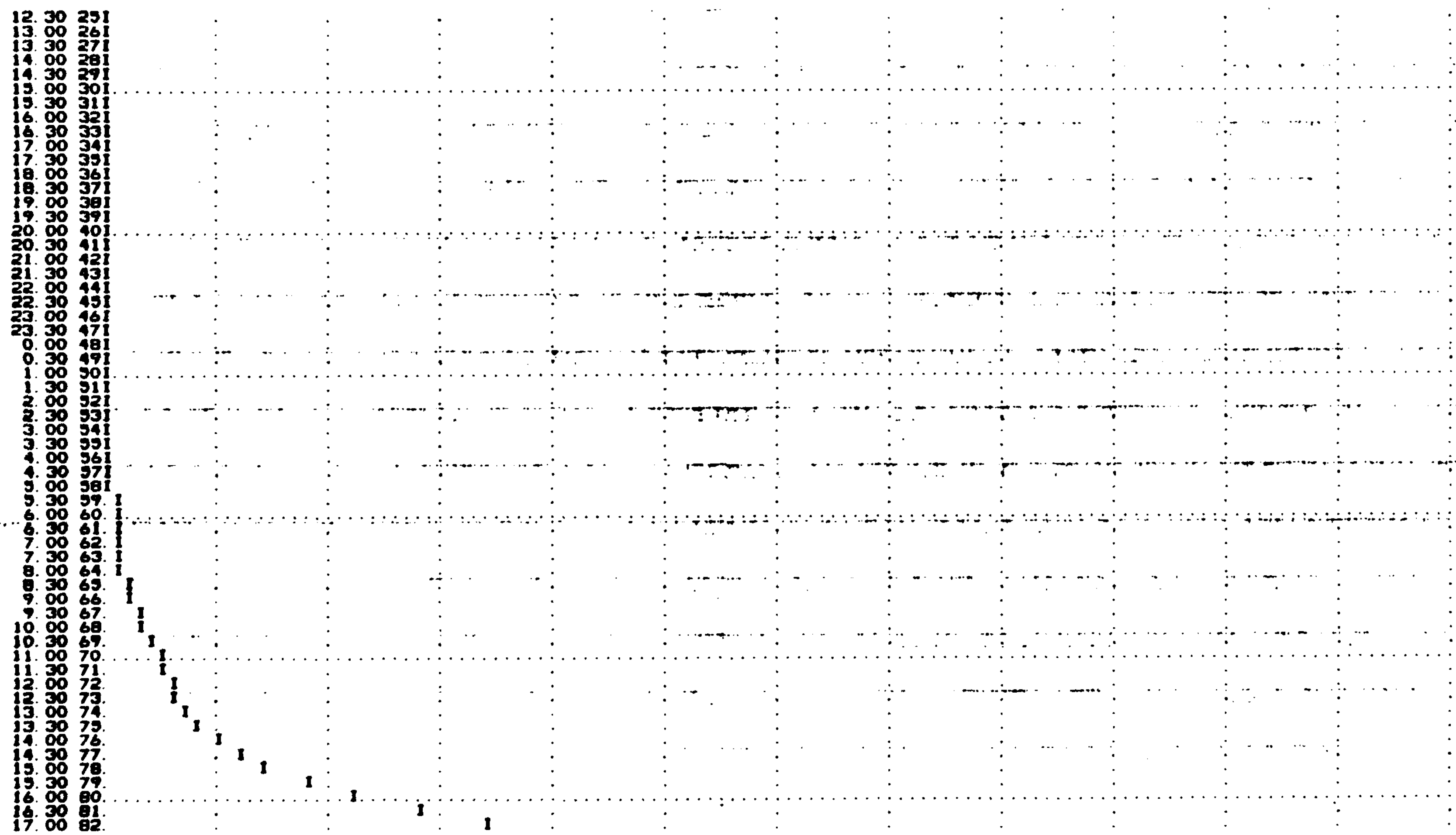
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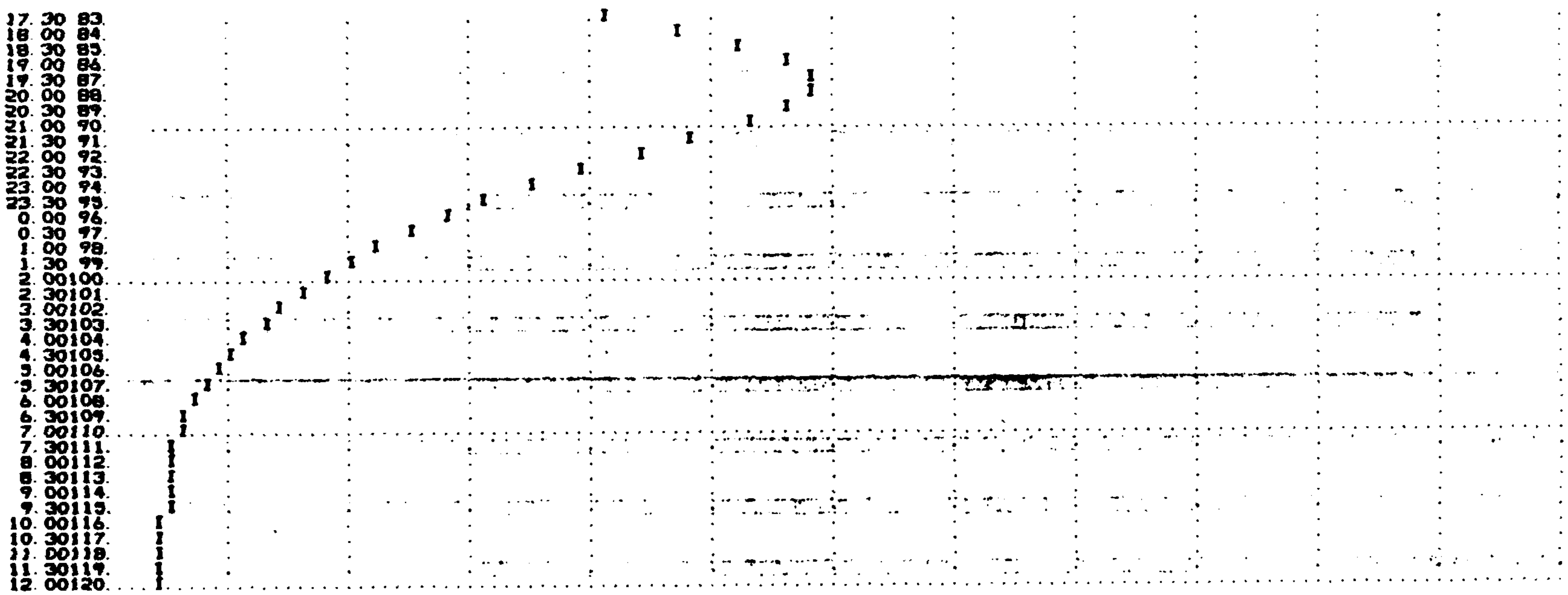
17.00 82.



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

21.	20.	20.	19.	18.	17.	17.	16.	16.	15.
14.	14.	13.	13.	12.	12.	12.	11.	11.	11.
10.	10.	10.	10.	9.	9.	9.	9.	9.	9.
9.	7.	10.	10.	11.	12.	12.	12.	12.	12.
12.	11.	11.	10.	9.	8.	8.	7.	7.	9.
13.	19.	28.	39.	52.	66.	80.	94.	107.	118.
133.	160.	204.	269.	356.	462.	583.	713.	845.	971.
1086.	1187.	1297.	1451.	1877.	1976.	2429.	2986.	3666.	4374.
5750.	7068.	8411.	9697.	10803.	11388.	11991.	11985.	11586.	10863.
9964.	9024.	8097.	7227.	6441.	5748.	5137.	4594.	4108.	3671.
3276.	2916.	2389.	2292.	2024.	1784.	1597.	1447.	1314.	1195.
1119.	1075.	1032.	991.	952.	914.	878.	843.	809.	777.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	11991.	10096.	4468.	1845.	221434.
CMS	340.	286.	127.	52.	6270.
INCHES		2.55	4.51	4.66	4.66
MM		64.70	114.52	118.25	118.25
AC-FT		5006.	8862.	9150.	9150.
THOUS CU M		6175.	10930.	11287.	11287.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    2000.   4000.   6000.   8000.   10000.   12000.    0.    0.    0.    0.    0.    0.
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
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 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
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 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
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13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
16.30  33I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
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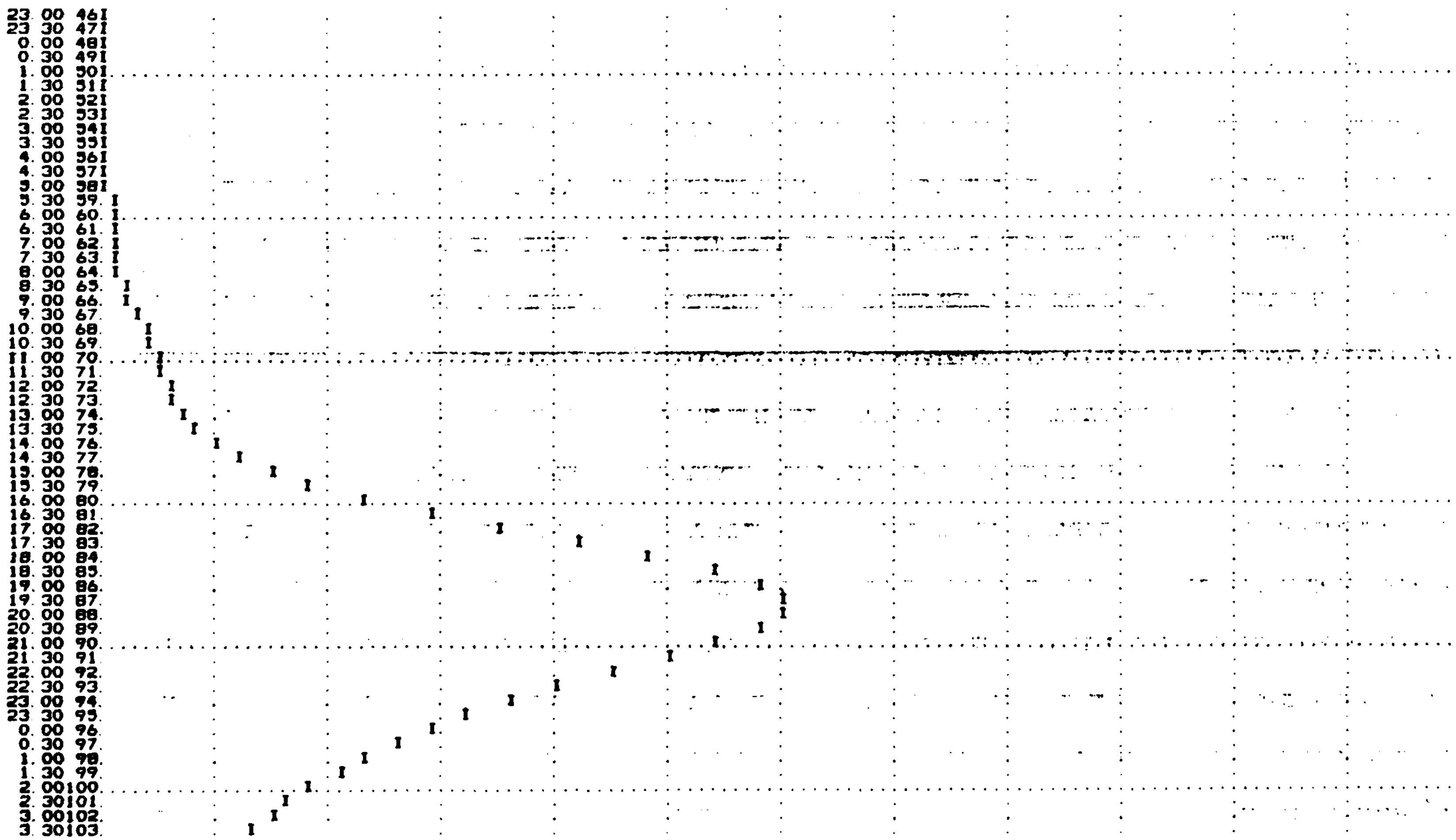
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3.30 103

FLAHERTY GIAVARA ASSOCIATES, P.C.

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10.30117. I
11.00118. I
11.30119. I
12.00120. I
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

35.	34.	33.	31.	30.	27.	28.	27.	26.	25.
24.	23.	22.	22.	21.	20.	19.	19.	18.	18.
17.	17.	16.	16.	15.	15.	15.	15.	15.	15.
15.	16.	16.	17.	18.	19.	20.	21.	21.	20.
20.	19.	18.	16.	15.	14.	13.	12.	12.	15.
21.	31.	46.	65.	86.	110.	134.	157.	178.	196.
221.	266.	340.	449.	593.	770.	972.	1189.	1409.	1619.
1810.	1979.	2161.	2418.	2794.	3327.	4048.	4976.	6111.	7623.
9584.	11780.	14018.	16162.	18005.	19313.	19984.	19975.	19310.	18106.
16607.	15040.	13495.	12044.	10735.	9580.	8562.	7656.	6847.	6119.
5459.	4860.	4314.	3820.	3373.	2974.	2661.	2412.	2190.	1991.
1865.	1791.	1720.	1652.	1586.	1523.	1463.	1404.	1349.	1295.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19984.	16827.	7446.	3079.	369056.
CMS	566.	476.	211.	87.	10450.
INCHES		4.25	7.51	7.76	7.76
MM		107.84	190.87	197.09	197.09
AC-FT		8344.	14769.	15250.	15250.
THOUS CU M		10292.	18217.	18811.	18811.

OVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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2.00  4I
2.30  5I
3.00  6I
3.30  7I
4.00  8I
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6.00	12
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10.00	20
10.30	21
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11.30	23
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15.00	30
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4.00	56.
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5.00	58.
5.30	59.
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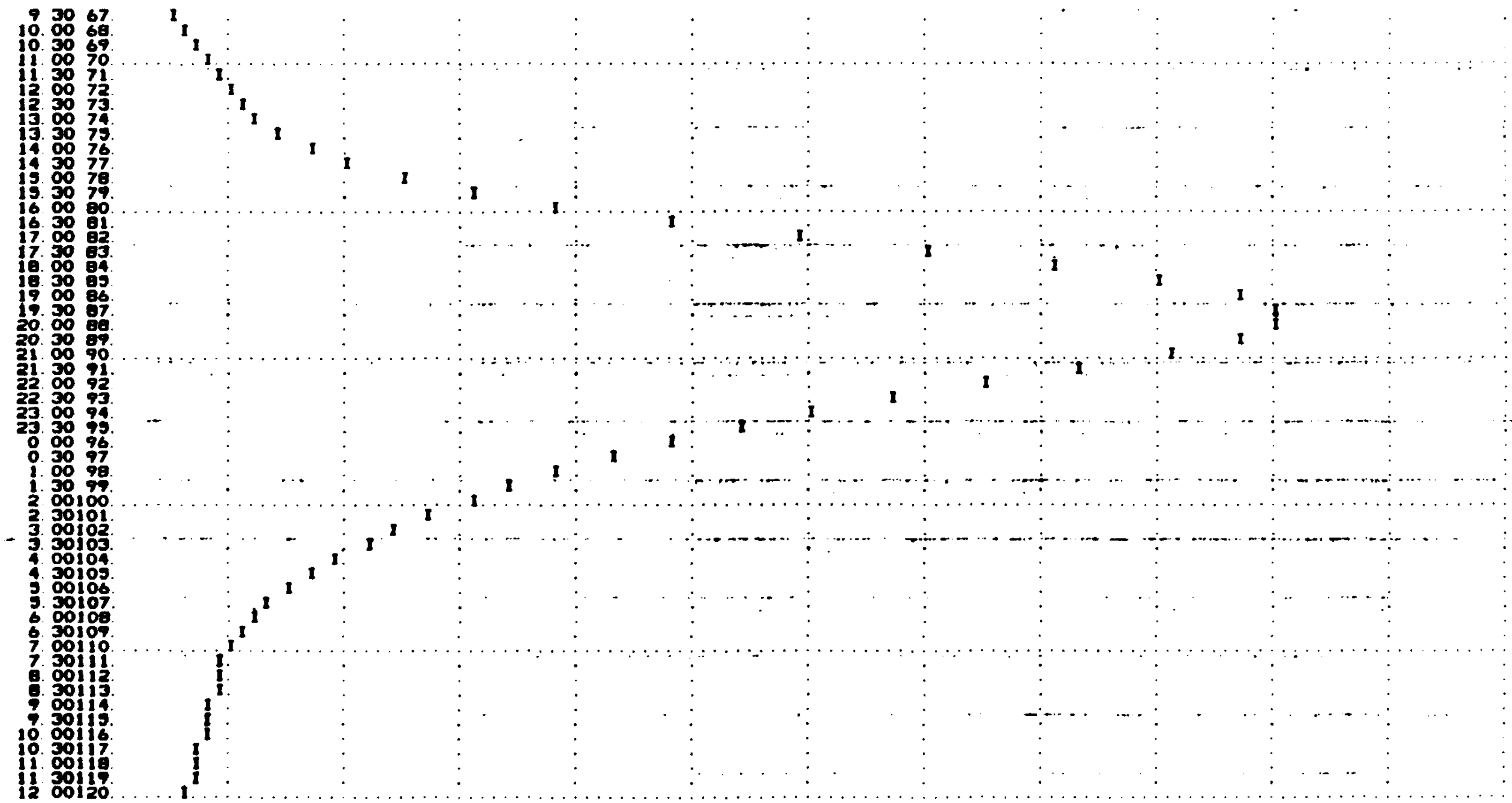
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11.30119.
12.00120.

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

71.	68.	65.	63.	60.	58.	56.	54.	52.	50.
48.	46.	45.	43.	42.	40.	39.	38.	37.	36.
35.	34.	33.	32.	31.	30.	30.	29.	29.	29.
30.	31.	33.	35.	37.	39.	40.	41.	42.	41.
40.	38.	35.	33.	30.	28.	26.	24.	24.	30.
42.	63.	92.	130.	173.	220.	268.	314.	356.	393.
442.	532.	681.	897.	1185.	1540.	1945.	2378.	2817.	3238.
3621.	3958.	4323.	4835.	5588.	6653.	8095.	9952.	12222.	15246.
19168.	23560.	28037.	32324.	36009.	38627.	39969.	39950.	38619.	36211.
33214.	30079.	26991.	24089.	21470.	19161.	17123.	15313.	13694.	12237.
10918.	9720.	8629.	7639.	6746.	5947.	5322.	4825.	4380.	3982.
3731.	3582.	3440.	3303.	3172.	3046.	2929.	2809.	2697.	2590.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	39969.	33655.	14892.	6151.	738112.
CMS	1132.	953.	422.	174.	20901.
INCHES		8.49	15.03	15.52	15.52
MM		215.67	381.74	394.18	394.18
AC-FT		16688.	29538.	30500.	30500.
THOUS CU M		20585.	36435.	37622.	37622.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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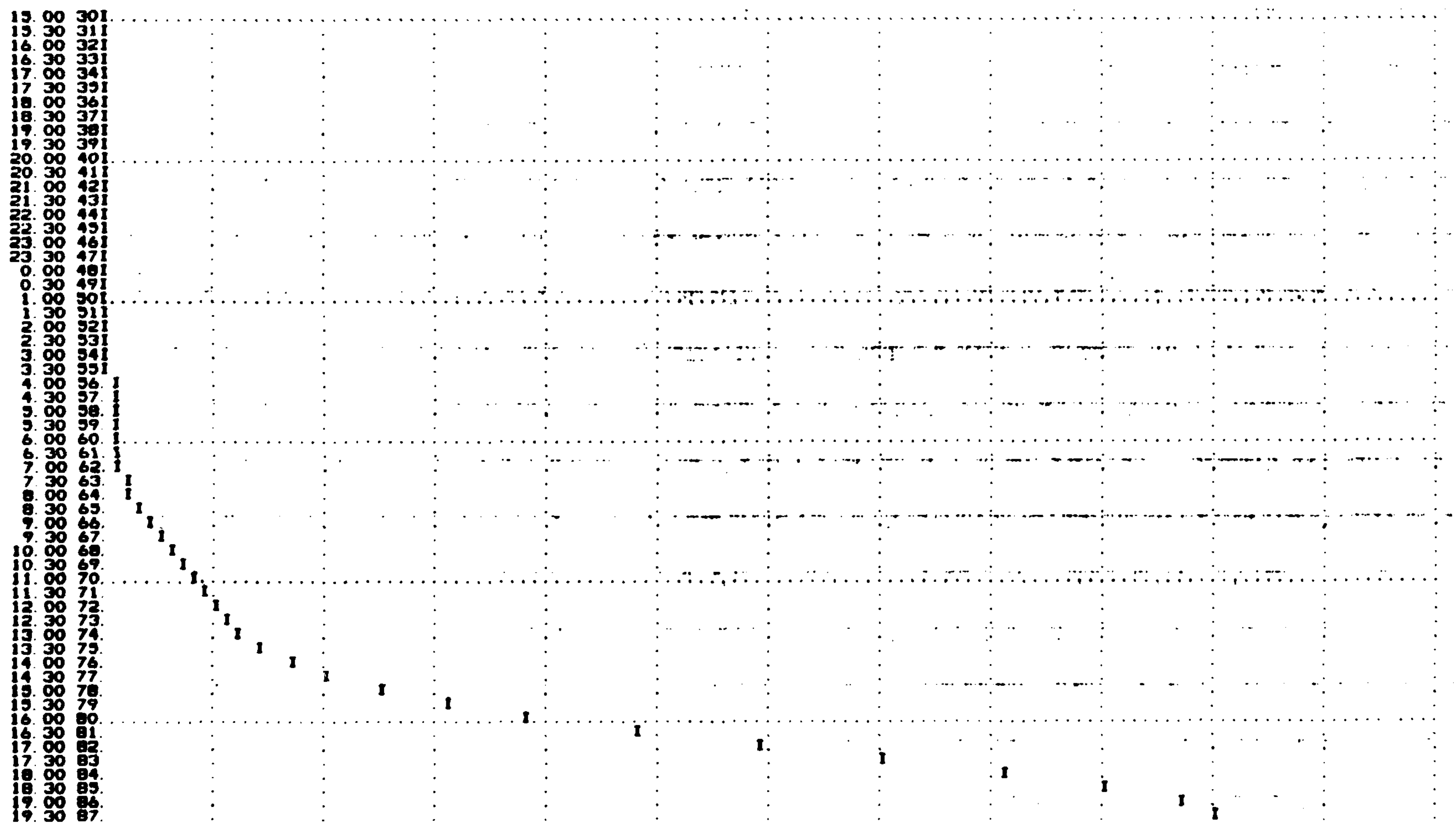
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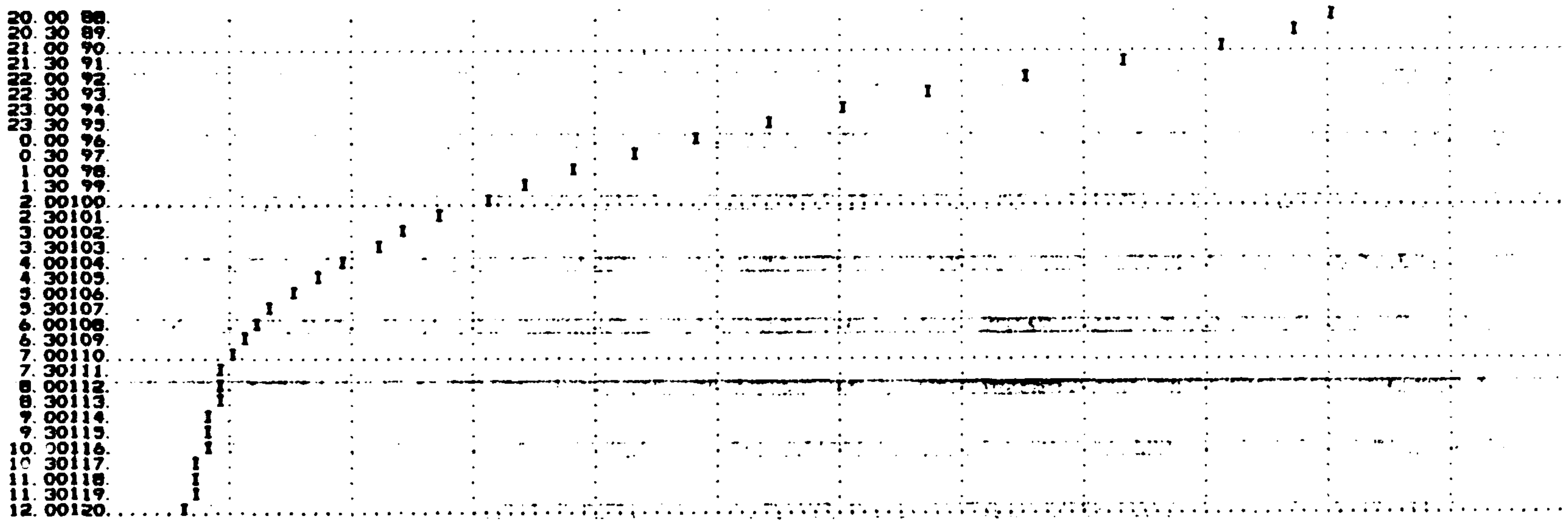

OVN

********** ********** ********** ********** **********

SUB-AREA RUNOFF COMPUTATION

INFLOW HYDROGRAPH - SUBWATERSHED NO. 3

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	0	0	0	0	0	1	0	0

HYDROGRAPH DATA

IHYDG	IUHG	TAREA	SNAP	TRSDA	TRSPC	RATIO	ISNOW	ISAME	LOCAL
1	1	17.47	0.00	17.47	0.00	0.000	0	1	0

PRECIP DATA

SPFE	PMS	R6	R12	R24	R48	R72	R96
0.00	19.30	86.00	100.00	112.00	119.00	0.00	0.00

TRSPC COMPUTED BY THE PROGRAM IS 0.819

LOSS DATA

LROPT	STRKR	DLTKR	RTIOL	ERAIN	STRKS	RTIOK	STRTL	CNSTL	ALSMX	RTIMP
0	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.10	0.00	0.01

UNIT HYDROGRAPH DATA
TP= 5.76 CP=0.63 NTA= 0

RECESSION DATA
STRTQ= -2.00 QRCSN= -0.10 RTIOR= 1.30
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC=12.86 AND R=10.42 INTERVALS

UNIT HYDROGRAPH 63 END-OF-PERIOD ORDINATES, LAG= 5.72 HOURS, CP= 0.63 VOL= 1.00

32.	118.	240.	382.	536.	699.	864.	1013.	1129.	1212.
1260.	1273.	1237.	1149.	1044.	948.	861.	782.	711.	646.
586.	533.	484.	440.	399.	363.	329.	299.	272.	247.
224.	204.	189.	168.	153.	139.	126.	115.	104.	94.
86.	78.	71.	64.	58.	53.	48.	44.	40.	36.
33.	30.	27.	25.	22.	20.	18.	17.	15.	14.
13.	11.	10.							

END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	34.	1.02	6.30	61	0.18	0.13	0.05	146.
1.01	1.00	2	0.00	0.00	0.00	32.	1.02	7.00	62	0.18	0.13	0.05	176.
1.01	1.30	3	0.00	0.00	0.00	31.	1.02	7.30	63	0.18	0.13	0.05	219.
1.01	2.00	4	0.00	0.00	0.00	30.	1.02	8.00	64	0.18	0.13	0.05	278.
1.01	2.30	5	0.00	0.00	0.00	29.	1.02	8.30	65	0.18	0.13	0.05	355.
1.01	3.00	6	0.00	0.00	0.00	27.	1.02	9.00	66	0.18	0.13	0.05	450.
1.01	3.30	7	0.00	0.00	0.00	26.	1.02	9.30	67	0.18	0.13	0.05	564.
1.01	4.00	8	0.00	0.00	0.00	25.	1.02	10.00	68	0.18	0.13	0.05	673.
1.01	4.30	9	0.00	0.00	0.00	24.	1.02	10.30	69	0.18	0.13	0.05	840.
1.01	5.00	10	0.00	0.00	0.00	24.	1.02	11.00	70	0.18	0.13	0.05	994.
1.01	5.30	11	0.00	0.00	0.00	23.	1.02	11.30	71	0.18	0.13	0.05	1153.
1.01	6.00	12	0.00	0.00	0.00	22.	1.02	12.00	72	0.18	0.13	0.05	1313.
1.01	6.30	13	0.01	0.00	0.01	21.	1.02	12.30	73	0.68	0.63	0.05	1484.
1.01	7.00	14	0.01	0.00	0.01	20.	1.02	13.00	74	0.68	0.63	0.05	1687.
1.01	7.30	15	0.01	0.00	0.01	20.	1.02	13.30	75	0.82	0.77	0.05	1941.
1.01	8.00	16	0.01	0.00	0.01	19.	1.02	14.00	76	0.82	0.77	0.05	2263.
1.01	8.30	17	0.01	0.00	0.01	18.	1.02	14.30	77	1.02	0.97	0.05	2677.
1.01	9.00	18	0.01	0.00	0.01	18.	1.02	15.00	78	1.02	0.97	0.05	3197.
1.01	9.30	19	0.01	0.00	0.01	17.	1.02	15.30	79	1.24	1.19	0.05	3843.
1.01	10.00	20	0.01	0.00	0.01	16.	1.02	16.00	80	3.93	3.88	0.05	4709.
1.01	10.30	21	0.01	0.00	0.01	16.	1.02	16.30	81	0.95	0.90	0.05	5845.
1.01	11.00	22	0.01	0.00	0.01	15.	1.02	17.00	82	0.95	0.90	0.05	7169.
1.01	11.30	23	0.01	0.00	0.01	15.	1.02	17.30	83	0.75	0.70	0.05	8606.
1.01	12.00	24	0.01	0.00	0.01	15.	1.02	18.00	84	0.75	0.70	0.05	10097.
1.01	12.30	25	0.04	0.00	0.04	14.	1.02	18.30	85	0.09	0.05	0.05	11564.
1.01	13.00	26	0.04	0.00	0.04	14.	1.02	19.00	86	0.09	0.05	0.05	12909.
1.01	13.30	27	0.05	0.00	0.05	13.	1.02	19.30	87	0.09	0.05	0.05	14025.
1.01	14.00	28	0.05	0.00	0.05	13.	1.02	20.00	88	0.09	0.05	0.05	14843.
1.01	14.30	29	0.06	0.00	0.06	13.	1.02	20.30	89	0.09	0.05	0.05	15345.
1.01	15.00	30	0.06	0.00	0.06	13.	1.02	21.00	90	0.09	0.05	0.05	15526.
1.01	15.30	31	0.08	0.00	0.08	13.	1.02	21.30	91	0.09	0.05	0.05	15384.
1.01	16.00	32	0.25	0.00	0.24	13.	1.02	22.00	92	0.09	0.05	0.05	14910.
1.01	16.30	33	0.06	0.00	0.06	13.	1.02	22.30	93	0.09	0.05	0.05	14139.
1.01	17.00	34	0.06	0.00	0.06	14.	1.02	23.00	94	0.09	0.05	0.05	13216.
1.01	17.30	35	0.05	0.00	0.05	14.	1.02	23.30	95	0.09	0.05	0.05	12257.
1.01	18.00	36	0.05	0.00	0.05	15.	1.03	0.00	96	0.09	0.05	0.05	11297.
1.01	18.30	37	0.01	0.00	0.01	16.	1.03	0.30	97	0.00	0.00	0.00	10370.

1.01	19.00	38	0.01	0.00	0.01	16.		1.03	1.00	98	0.00	0.00	0.00	9508.
1.01	19.30	39	0.01	0.00	0.01	17.		1.03	1.30	99	0.00	0.00	0.00	8719.
1.01	20.00	40	0.01	0.00	0.01	17.		1.03	2.00	100	0.00	0.00	0.00	7995.
1.01	20.30	41	0.01	0.00	0.01	17.		1.03	2.30	101	0.00	0.00	0.00	7329.
1.01	21.00	42	0.01	0.00	0.01	17.		1.03	3.00	102	0.00	0.00	0.00	6714.
1.01	21.30	43	0.01	0.00	0.01	16.		1.03	3.30	103	0.00	0.00	0.00	6145.
1.01	22.00	44	0.01	0.00	0.01	16.		1.03	4.00	104	0.00	0.00	0.00	5618.
1.01	22.30	45	0.01	0.00	0.01	15.		1.03	4.30	105	0.00	0.00	0.00	5130.
1.01	23.00	46	0.01	0.00	0.01	14.		1.03	5.00	106	0.00	0.00	0.00	4677.
1.01	23.30	47	0.01	0.00	0.01	14.		1.03	5.30	107	0.00	0.00	0.00	4260.
1.02	0.00	48	0.01	0.00	0.01	13.		1.03	6.00	108	0.00	0.00	0.00	3874.
1.02	0.30	49	0.06	0.01	0.05	12.		1.03	6.30	109	0.00	0.00	0.00	3520.
1.02	1.00	50	0.06	0.01	0.05	13.		1.03	7.00	110	0.00	0.00	0.00	3198.
1.02	1.30	51	0.06	0.01	0.05	16.		1.03	7.30	111	0.00	0.00	0.00	2905.
1.02	2.00	52	0.06	0.01	0.05	20.		1.03	8.00	112	0.00	0.00	0.00	2639.
1.02	2.30	53	0.06	0.01	0.05	27.		1.03	8.30	113	0.00	0.00	0.00	2397.
1.02	3.00	54	0.06	0.01	0.05	36.		1.03	9.00	114	0.00	0.00	0.00	2177.
1.02	3.30	55	0.06	0.01	0.05	48.		1.03	9.30	115	0.00	0.00	0.00	1978.
1.02	4.00	56	0.06	0.01	0.05	61.		1.03	10.00	116	0.00	0.00	0.00	1796.
1.02	4.30	57	0.06	0.01	0.05	76.		1.03	10.30	117	0.00	0.00	0.00	1632.
1.02	5.00	58	0.06	0.01	0.05	92.		1.03	11.00	118	0.00	0.00	0.00	1524.
1.02	5.30	59	0.06	0.01	0.05	109.		1.03	11.30	119	0.00	0.00	0.00	1463.
1.02	6.00	60	0.06	0.01	0.05	126.		1.03	12.00	120	0.00	0.00	0.00	1405.
										SUM	18.81	15.33	3.47	334614.
											(478.)	(389.)	(88.)	(9475.20)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15526.	13735.	6789.	2782.	333896.
CMS	440.	389.	192.	79.	9455.
INCHES		7.31	14.46	14.82	14.82
MM		185.76	367.27	376.32	376.32
AC-FT		6811.	13465.	13797.	13797.
THOUS CU M		8401.	16609.	17019.	17019.

DVF

STATION 1

```
                                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.     2000.     4000.     6000.     8000.    10000.    12000.    14000.    16000.      0.      0.      0.      0.
                                                                                                  PRECIP(L) AND EXCESS(X)
          0.        0.        0.        0.        0.        0.        0.        0.        4.      3.      2.      1.      0.
 0.30   11I                                                                                                            L
 1.00   21I                                                                                                            L
 1.30   31I                                                                                                            L
 2.00   41I                                                                                                            L
 2.30   51I                                                                                                            L
 3.00   61I                                                                                                            L
 3.30   71I                                                                                                            L
 4.00   81I                                                                                                            L
 4.30   91I                                                                                                            L
 5.00  101I                                                                                                            L
 5.30  111I                                                                                                            L
 6.00  121I                                                                                                            L
 6.30  131I                                                                                                            L
 7.00  141I                                                                                                            L
 7.30  151I                                                                                                            L
 8.00  161I                                                                                                            L
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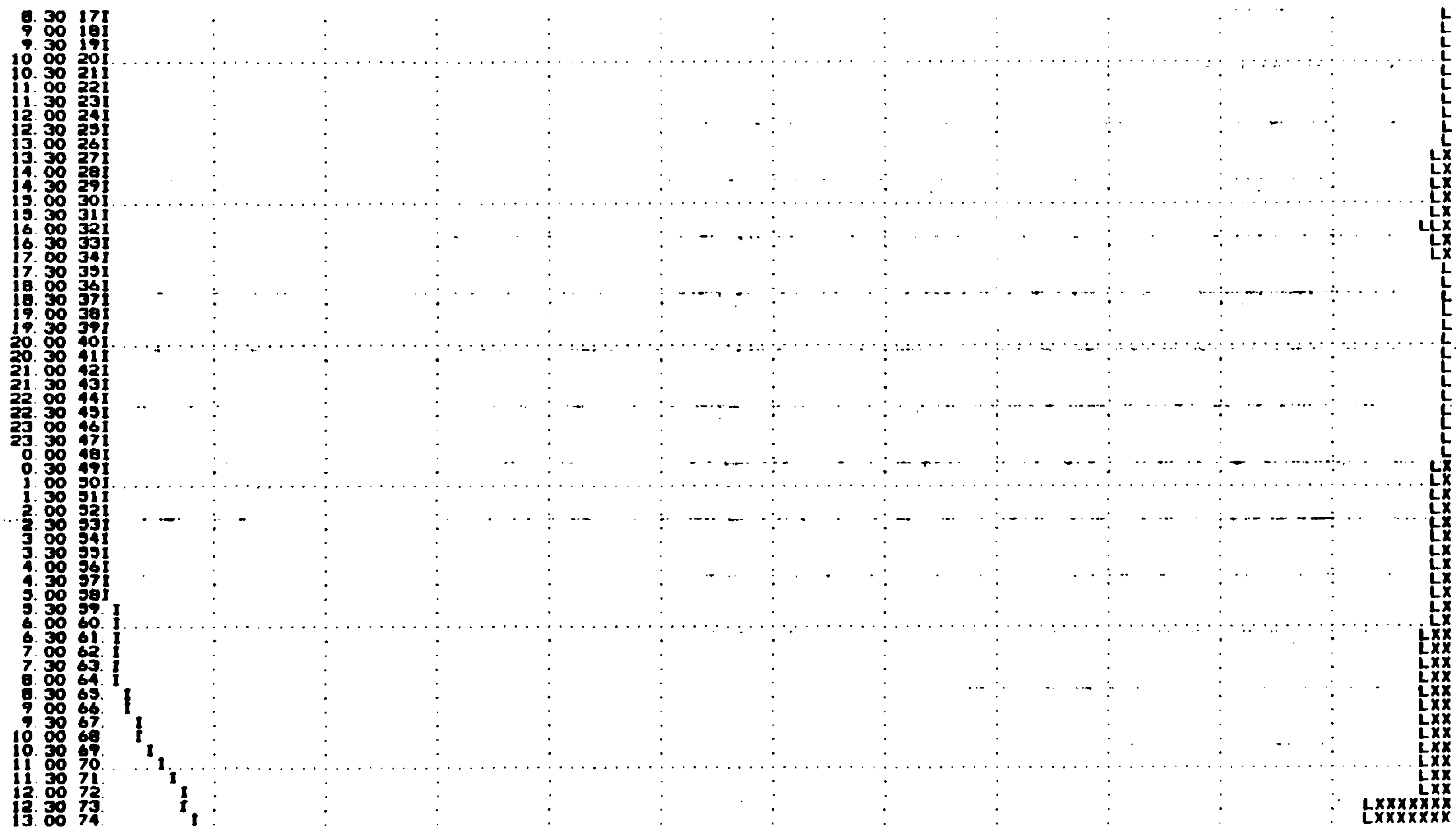
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19.30 39
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0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
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8.30 65
9.00 66
9.30 67
10.00 68
10.30 69
11.00 70
11.30 71
12.00 72
12.30 73
13.00 74

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13.30  75.
14.00  76.
14.30  77.
15.00  78.
15.30  79.
16.00  80.
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17.00  82.
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19.30  87.
20.00  88.
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21.00  90.
21.30  91.
22.00  92.
22.30  93.
23.00  94.
23.30  95.
0.00  96.
0.30  97.
1.00  98.
1.30  99.
2.00 100.
2.30 101.
3.00 102.
3.30 103.
4.00 104.
4.30 105.
5.00 106.
5.30 107.
6.00 108.
6.30 109.
7.00 110.
7.30 111.
8.00 112.
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12.00 120.
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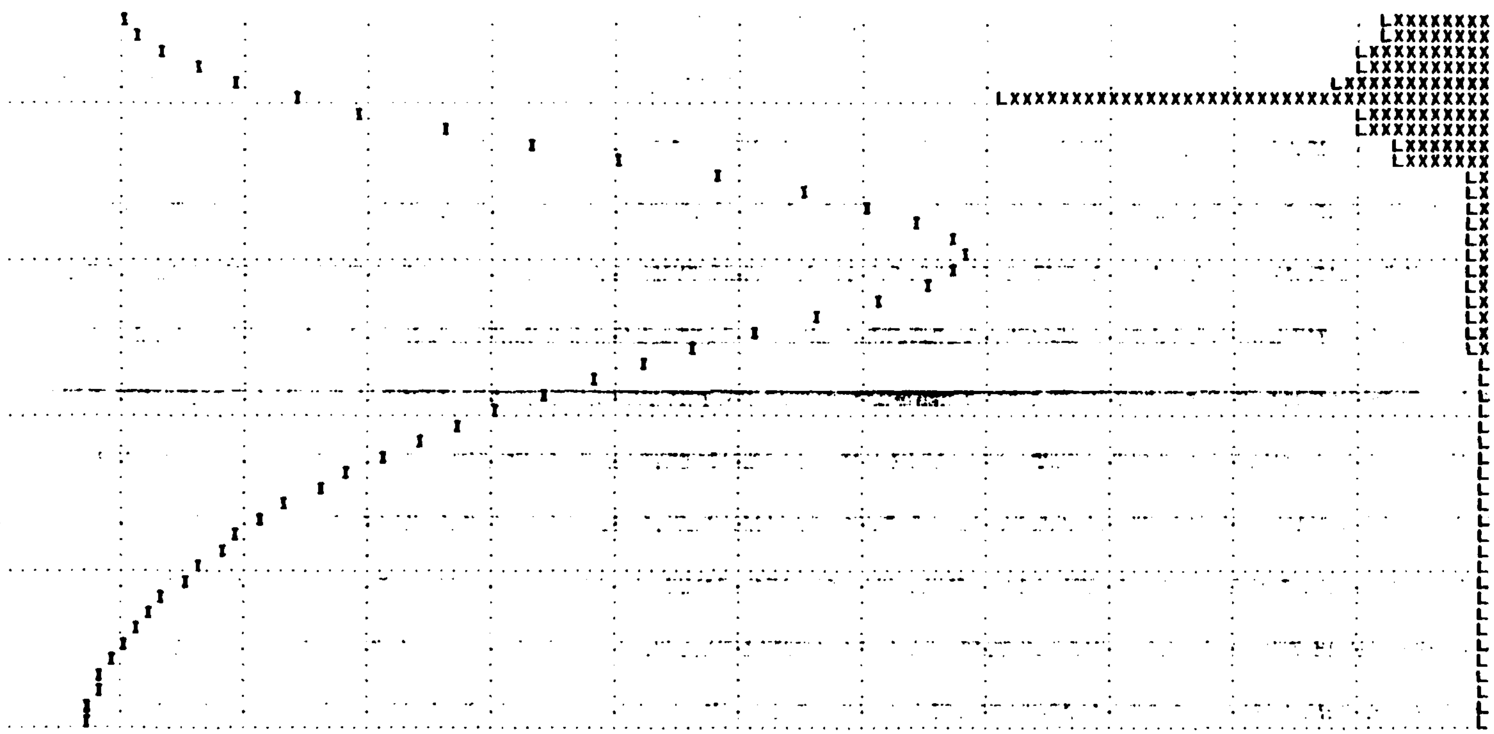


#OVN#

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

7.	6.	6.	6.	6.	5.	5.	5.	5.	5.
5.	4.	4.	4.	4.	4.	4.	4.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	2.	3.
3.	4.	5.	7.	10.	12.	15.	18.	22.	25.

29.	35.	44.	56.	71.	90.	113.	139.	168.	199.
231.	263.	297.	337.	388.	453.	535.	639.	769.	942.
1169.	1434.	1721.	2019.	2313.	2582.	2805.	2969.	3069.	3105.
3077.	2982.	2828.	2643.	2451.	2259.	2074.	1902.	1744.	1599.
1466.	1343.	1229.	1124.	1026.	935.	852.	775.	704.	640.
581.	528.	479.	435.	396.	359.	326.	305.	293.	281.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3105.	2747.	1358.	556.	66777.
CMS	88.	78.	38.	16.	1891.
INCHES		1.46	2.89	2.96	2.96
MM		37.15	73.45	75.26	75.26
AC-FT		1362.	2693.	2759.	2759.
THOUS CU M		1680.	3322.	3404.	3404.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

8.	8.	8.	7.	7.	7.	7.	6.	6.	6.
6.	5.	5.	5.	5.	5.	5.	4.	4.	4.
4.	4.	4.	4.	4.	3.	3.	3.	3.	3.
3.	3.	3.	3.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	4.	3.	3.	3.	3.
4.	5.	7.	9.	12.	15.	19.	23.	27.	31.
37.	44.	55.	70.	89.	112.	141.	174.	210.	248.
288.	328.	371.	422.	485.	566.	669.	799.	961.	1177.
1461.	1792.	2132.	2324.	2891.	3227.	3506.	3711.	3836.	3881.
3846.	3728.	3535.	3304.	3064.	2824.	2593.	2377.	2180.	1999.
1832.	1679.	1536.	1404.	1282.	1169.	1065.	969.	880.	799.
726.	660.	599.	544.	494.	449.	408.	381.	366.	351.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3881.	3434.	1697.	696.	83474.
CMS	110.	97.	48.	20.	2364.
INCHES		1.83	3.61	3.70	3.70
MM		46.44	91.82	94.08	94.08
AC-FT		1703.	3366.	3449.	3449.
THOUS CU M		2100.	4152.	4255.	4255.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

9.	8.	8.	8.	7.	7.	7.	7.	6.	6.
6.	6.	5.	5.	5.	5.	5.	5.	4.	4.
4.	4.	4.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	4.	4.	3.	3.	3.
4.	5.	7.	9.	12.	16.	20.	24.	28.	33.
38.	46.	57.	72.	92.	117.	147.	181.	218.	258.
300.	341.	386.	438.	505.	589.	696.	831.	999.	1224.
1520.	1864.	2238.	2625.	3007.	3356.	3646.	3859.	3990.	4037.
4000.	3877.	3676.	3436.	3187.	2937.	2696.	2472.	2267.	2079.
1906.	1746.	1598.	1461.	1334.	1216.	1107.	1007.	915.	831.
755.	686.	623.	566.	514.	467.	424.	396.	380.	365.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4037.	3571.	1765.	723.	86813.
CMS	114.	101.	50.	20.	2458.
INCHES		1.90	3.76	3.85	3.85
MM		48.30	95.49	97.84	97.84

AC-FT		1771.	3501.	3587.	3587.
THOUS CU M		2184.	4318.	4425.	4425.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

9.	9.	8.	8.	8.	7.	7.	7.	7.	6.
6.	6.	6.	5.	5.	5.	5.	5.	5.	4.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	4.	4.	4.	4.	5.
5.	5.	4.	4.	4.	4.	4.	3.	3.	4.
4.	6.	7.	10.	13.	16.	21.	25.	29.	34.
40.	48.	59.	75.	96.	121.	152.	188.	227.	268.
311.	355.	401.	455.	524.	611.	723.	863.	1038.	1271.
1578.	1936.	2324.	2726.	3122.	3485.	3787.	4008.	4143.	4192.
4154.	4026.	3818.	3568.	3309.	3050.	2800.	2567.	2354.	2159.
1979.	1813.	1659.	1517.	1385.	1263.	1150.	1046.	951.	863.
784.	712.	647.	588.	534.	485.	441.	411.	395.	379.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4192.	3708.	1833.	751.	90152.
CMS	119.	105.	52.	21.	2553.
INCHES		1.97	3.90	4.00	4.00
MM		50.16	99.16	101.61	101.61
AC-FT		1839.	3636.	3725.	3725.
THOUS CU M		2268.	4484.	4595.	4595.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

9.	9.	9.	8.	8.	8.	7.	7.	7.	7.
6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	4.	4.	5.	5.	5.
5.	5.	5.	4.	4.	4.	4.	4.	3.	4.
4.	6.	8.	10.	13.	17.	21.	26.	31.	35.
41.	49.	61.	78.	99.	126.	158.	195.	235.	278.
323.	368.	416.	472.	543.	634.	750.	895.	1076.	1319.
1637.	2007.	2410.	2827.	3238.	3614.	3927.	4156.	4297.	4347.
4308.	4175.	3959.	3701.	3432.	3163.	2904.	2662.	2441.	2239.
2052.	1880.	1721.	1573.	1436.	1310.	1193.	1085.	986.	895.
813.	739.	671.	610.	554.	503.	457.	427.	410.	393.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4347.	3846.	1901.	779.	93491.
CMS	123.	109.	54.	22.	2647.
INCHES		2.05	4.05	4.15	4.15
MM		52.01	102.83	105.37	105.37
AC-FT		1907.	3770.	3863.	3863.
THOUS CU M		2352.	4651.	4765.	4765.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

10.	9.	9.	9.	8.	8.	8.	7.	7.	7.
7.	6.	6.	6.	6.	5.	5.	5.	5.	5.
5.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	4.	5.	5.	5.	5.
5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
5.	6.	8.	11.	14.	18.	22.	27.	32.	37.
42.	51.	64.	81.	103.	130.	164.	202.	244.	288.

334.	381.	430.	489.	563.	657.	776.	927.	1114.	1366.
1695.	2079.	2496.	2928.	3354.	3744.	4067.	4304.	4450.	4503.
4461.	4324.	4100.	3833.	3554.	3276.	3007.	2757.	2529.	2319.
2125.	1947.	1782.	1629.	1488.	1356.	1235.	1124.	1021.	927.
842.	765.	695.	631.	574.	521.	473.	442.	424.	407.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4503.	3983.	1969.	807.	96830.
CMS	127.	113.	56.	23.	2742.
INCHES		2.12	4.19	4.30	4.30
MM		53.87	106.51	109.13	109.13
AC-FT		1975.	3905.	4001.	4001.
THOUS CU M		2436.	4817.	4935.	4935.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

10.	10.	7.	7.	7.	8.	8.	8.	7.	7.
7.	7.	6.	6.	6.	6.	5.	5.	5.	5.
5.	5.	5.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	5.	5.	5.	5.	5.
5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
5.	6.	8.	11.	14.	18.	23.	28.	33.	38.
44.	53.	66.	83.	106.	135.	169.	209.	252.	298.
346.	394.	445.	506.	582.	679.	803.	959.	1153.	1413.
1753.	2151.	2582.	3029.	3469.	3873.	4207.	4453.	4604.	4658.
4615.	4473.	4242.	3965.	3677.	3389.	3111.	2853.	2616.	2399.
2199.	2014.	1844.	1685.	1539.	1403.	1278.	1162.	1056.	959.
871.	792.	719.	653.	593.	539.	490.	457.	439.	421.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4658.	4120.	2037.	835.	100169.
CMS	132.	117.	58.	24.	2836.
INCHES		2.19	4.34	4.44	4.44
MM		55.73	110.18	112.90	112.90
AC-FT		2043.	4040.	4139.	4139.
THOUS CU M		2520.	4983.	5106.	5106.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

17.	16.	15.	15.	14.	14.	13.	13.	12.	12.
11.	11.	11.	10.	10.	9.	9.	9.	9.	8.
8.	8.	8.	7.	7.	7.	7.	7.	7.	6.
6.	7.	7.	7.	7.	8.	8.	8.	8.	8.
8.	8.	8.	8.	8.	7.	7.	6.	6.	7.
8.	10.	14.	18.	24.	30.	38.	46.	54.	63.
73.	88.	110.	139.	177.	225.	282.	348.	420.	497.
577.	657.	742.	843.	970.	1132.	1339.	1599.	1921.	2355.
2922.	3585.	4303.	5049.	5782.	6454.	7012.	7421.	7673.	7763.
7692.	7455.	7070.	6608.	6128.	5648.	5185.	4754.	4360.	3998.
3664.	3357.	3073.	2809.	2565.	2339.	2130.	1937.	1760.	1599.
1452.	1319.	1198.	1089.	989.	898.	816.	762.	731.	702.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7763.	6867.	3394.	1391.	166948.
CMS	220.	194.	96.	39.	4727.
INCHES		3.66	7.23	7.41	7.41
MM		92.88	183.63	188.16	188.16
AC-FT		3405.	6733.	6899.	6899.

THOUS CU M	4200.	8305.	8509.	8509.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

34.	32.	31.	30.	29.	27.	26.	25.	24.	24.
23.	22.	21.	20.	20.	19.	18.	18.	17.	16.
16.	15.	15.	15.	14.	14.	13.	13.	13.	13.
13.	13.	13.	14.	14.	15.	16.	16.	17.	17.
17.	17.	16.	16.	15.	14.	14.	13.	12.	13.
16.	20.	27.	36.	48.	61.	76.	92.	109.	126.
146.	176.	219.	278.	335.	450.	364.	695.	840.	994.
1133.	1313.	1484.	1687.	1941.	2265.	2677.	3197.	3843.	4709.
3845.	7169.	8606.	10097.	11564.	12909.	14025.	14843.	15345.	15526.
15384.	14910.	14139.	13216.	12257.	11297.	10370.	9508.	8719.	7995.
7329.	6714.	6149.	5618.	5130.	4677.	4260.	3874.	3520.	3198.
2905.	2639.	2397.	2177.	1978.	1796.	1632.	1524.	1463.	1405.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15526.	13735.	6789.	2782.	333895.
CMS	440.	389.	192.	79.	9455.
INCHES		7.31	14.46	14.82	14.82
MM		185.76	367.27	376.32	376.32
AC-FT		6811.	13465.	13797.	13797.
THOUS CU M		8401.	16609.	17019.	17019.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	INAME	ISTAGE	IAUTO
1	2	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

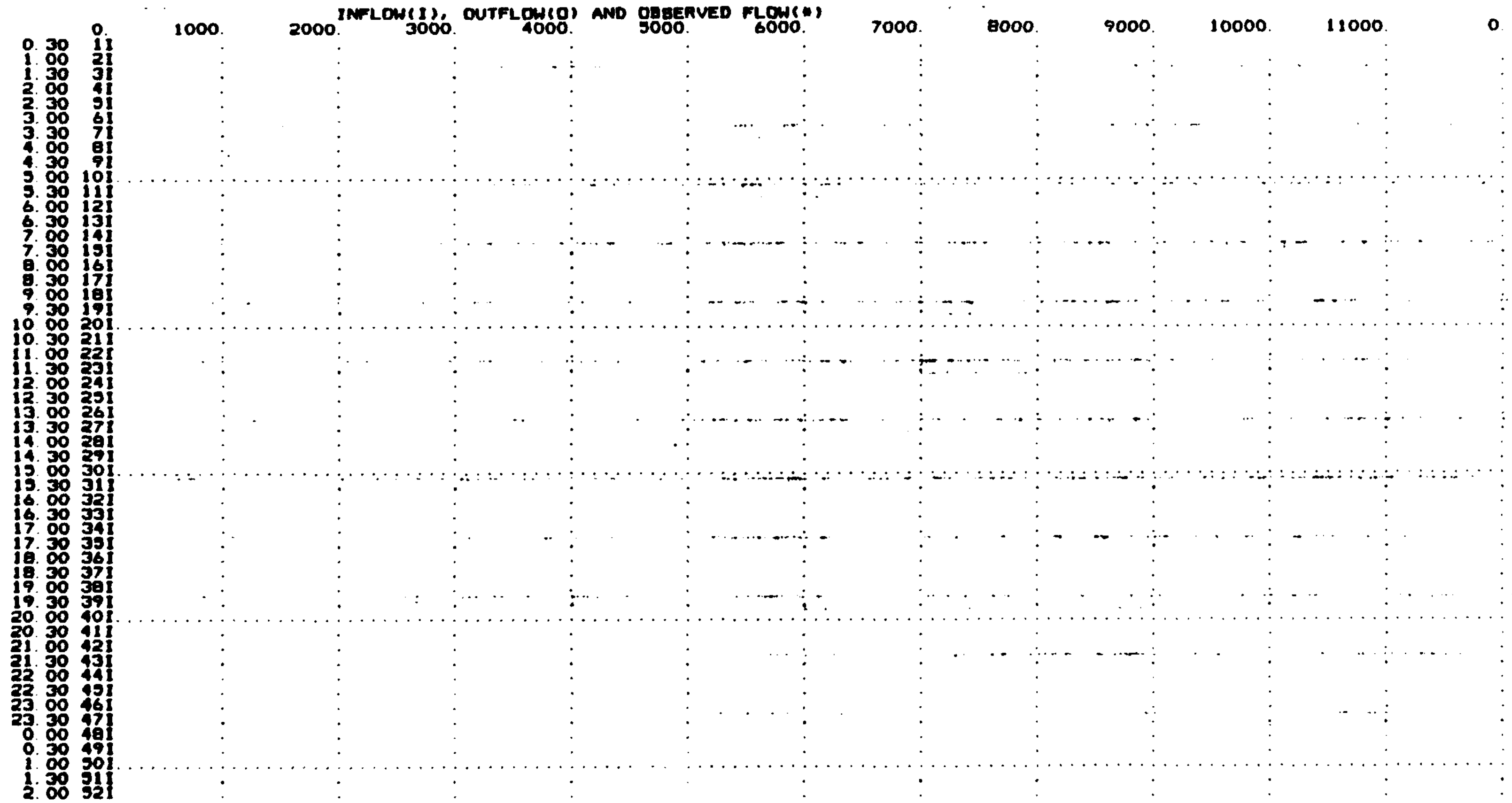
21.	20.	19.	19.	18.	17.	16.	16.	15.	15.
14.	14.	13.	13.	12.	12.	11.	11.	11.	10.
10.	10.	10.	9.	9.	9.	9.	8.	8.	8.
9.	9.	9.	10.	10.	11.	11.	12.	12.	12.
11.	11.	10.	10.	9.	8.	8.	7.	7.	9.
12.	17.	24.	33.	44.	56.	69.	81.	93.	104.
118.	142.	180.	235.	308.	398.	502.	615.	731.	846.
955.	1054.	1161.	1304.	1506.	1784.	2154.	2630.	3213.	3991.
5003.	6146.	7329.	8484.	9515.	10307.	10799.	10959.	10793.	10347.
9720.	8998.	8226.	7461.	6745.	6091.	5499.	4964.	4483.	4046.
3649.	3287.	2959.	2651.	2375.	2125.	1916.	1740.	1580.	1436.
1327.	1244.	1167.	1096.	1030.	968.	911.	866.	832.	799.

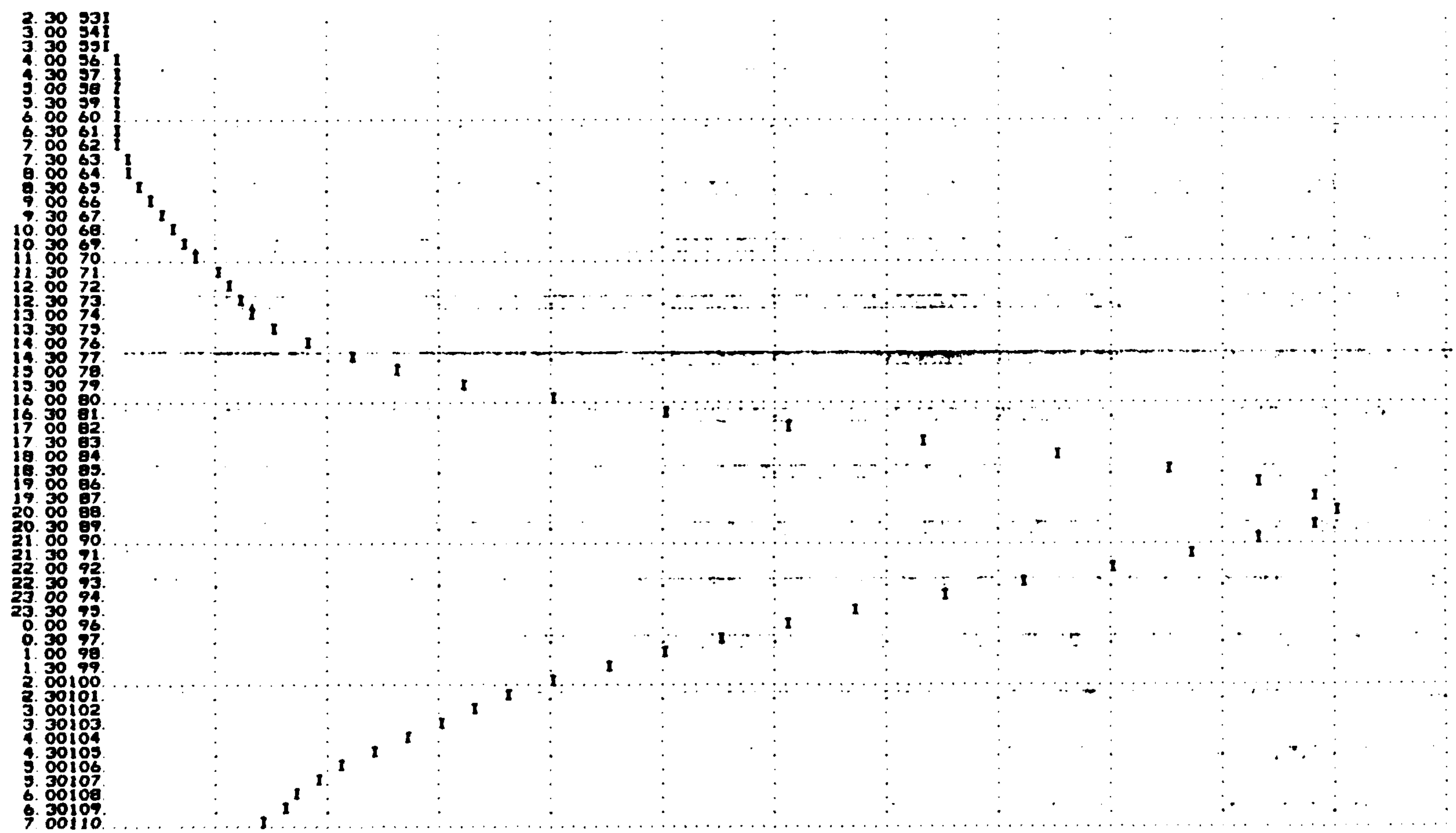
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	10959.	9387.	4333.	1787.	214402.
CMS	310.	266.	123.	51.	6071.
INCHES		1.61	2.97	3.06	3.06
MM		40.82	75.36	77.69	77.69
AC-FT		4655.	8594.	8860.	8860.
THOUS CU M		5742.	10601.	10928.	10928.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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6.00108.
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7.00110.

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 10.00116.      I
 10.30117.     I
 11.00118.     I
 11.30119.    I
 12.00120.    I

*OVN*

                          SUM OF 2 HYDROGRAPHS AT        I  PLAN 1  RTIO 2
      26.      25.      24.      23.      22.      21.      21.      20       19.      18.
      18.      17.      16.      16.      15.      15.      14.      14.      13.      13.
      13.      12.      12.      12.      11.      11.      11.      11.      11.      11.
      11.      11.      12.      12.      13.      13.      14.      14.      15.      14.
      14.      14.      13.      12.      11.      11.      10.       9.       9.      11.
      15.      21.      30.      41.      55.      70.      86.     101.     116.     130.
     147.     177.     225.     294.     385.     497.     627.     768.     914.    1058.
    1193.    1318.    1452.    1630.    1882.    2229.    2693.    3287.    4016.    4989.
    6253.    7682.    9161.   10605.   11893.   12884.   13498.   13698.   13491.   12934.
   12150.   11247.   10283.    9326.    8432.    7614.    6873.    6205.    5603.    5038.
    4562.    4108.    3693.    3314.    2969.    2656.    2395.    2175.    1975.    1795.
    1659.    1555.    1459.    1370.    1287.    1211.    1139.    1083.    1040.     999.

                         PEAK    6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
               CFS     13698.    11734.     5416.     2233.        268002.
               CMS       388.      332.      153.       63.          7589.
            INCHES                 2.01      3.71      3.82           3.82
                MM                51.02     94.20     97.11          97.11
             AC-FT                5818.    10743.    11074.         11074.
        THOUS CU M                7177.    13251.    13660.         13660.

*OVF*
                                   STATION    1

                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.    2000.    4000.    6000.    8000.   10000.   12000.   14000.    0.    0.    0.    0.    0.
  0.30   1I
  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
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8.00	16
8.30	17
9.00	18
9.30	19
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12.00	24
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14.00	28
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15.00	30
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21.00	42
21.30	43
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23.00	46
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1.30	51
2.00	52
2.30	53
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5.00	58.
5.30	59.
6.00	60.
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7.00	62.
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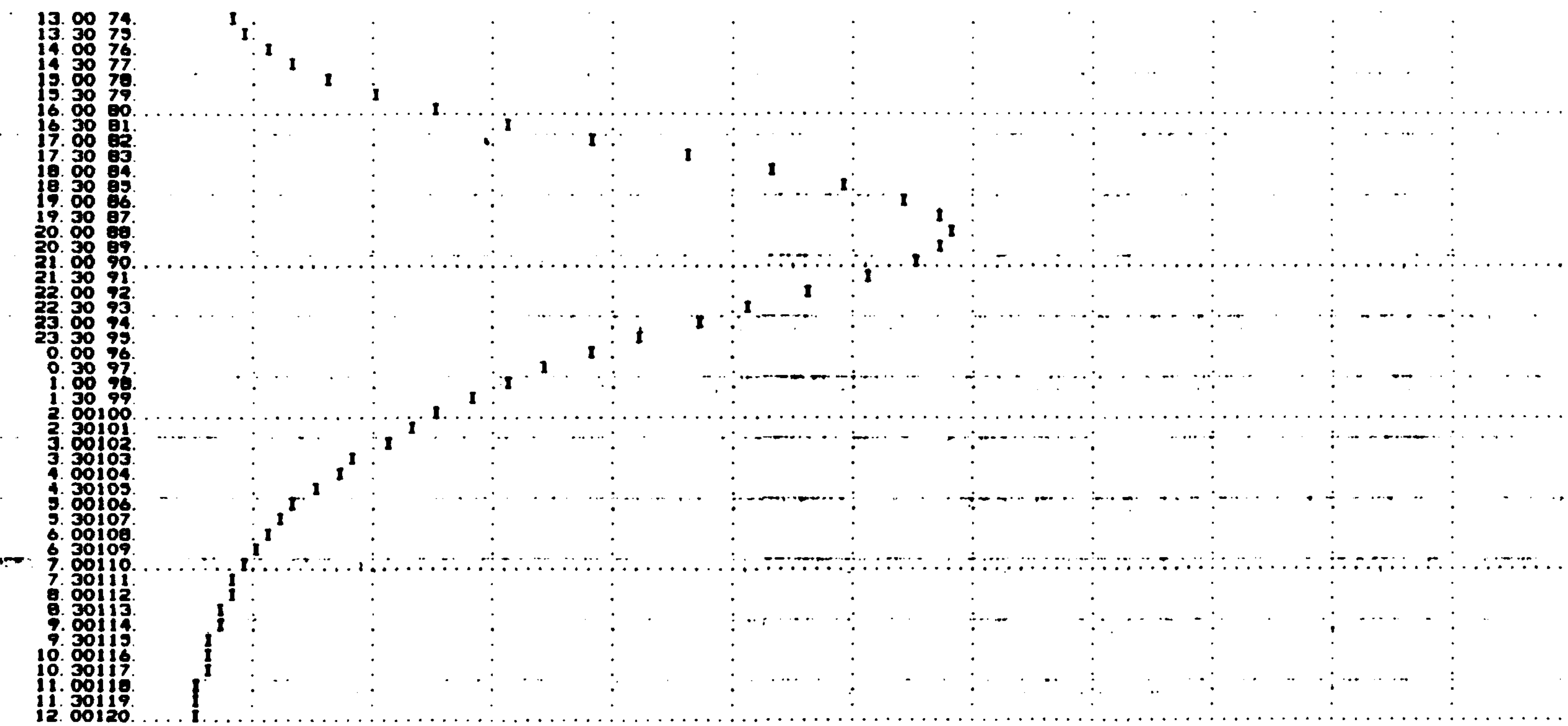

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

27.	26.	25.	24.	23.	22.	21.	21.	20.	19.
18.	18.	17.	16.	16.	15.	15.	14.	14.	14.
13.	13.	12.	12.	12.	11.	11.	11.	11.	11.
11.	11.	12.	13.	13.	14.	15.	15.	15.	15.

15.	14.	13.	13.	12.	11.	10.	10.	10.	11.
15.	22.	31.	43.	57.	73.	89.	106.	121.	135.
153.	184.	234.	306.	400.	517.	652.	799.	951.	1100.
1241.	1371.	1510.	1696.	1958.	2319.	2801.	3419.	4177.	5188.
6503.	7990.	9527.	11029.	12369.	13399.	14038.	14246.	14031.	13452.
12636.	11697.	10694.	9699.	8769.	7919.	7148.	6454.	5827.	5260.
4744.	4273.	3841.	3447.	3088.	2762.	2491.	2262.	2054.	1867.
1725.	1618.	1518.	1425.	1339.	1259.	1185.	1126.	1082.	1039.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	14246.	12203.	3633.	2323.	278722.
CMS	403.	346.	160.	66.	7893.
INCHES		2.07	3.86	3.98	3.98
MM		53.06	97.97	100.99	100.99
AC-FT		6051.	11173.	11517.	11517.
THOUS CU M		7464.	13781.	14207.	14207.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.   2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   0.   0.   0.   0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
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 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
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 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
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13.30  27I
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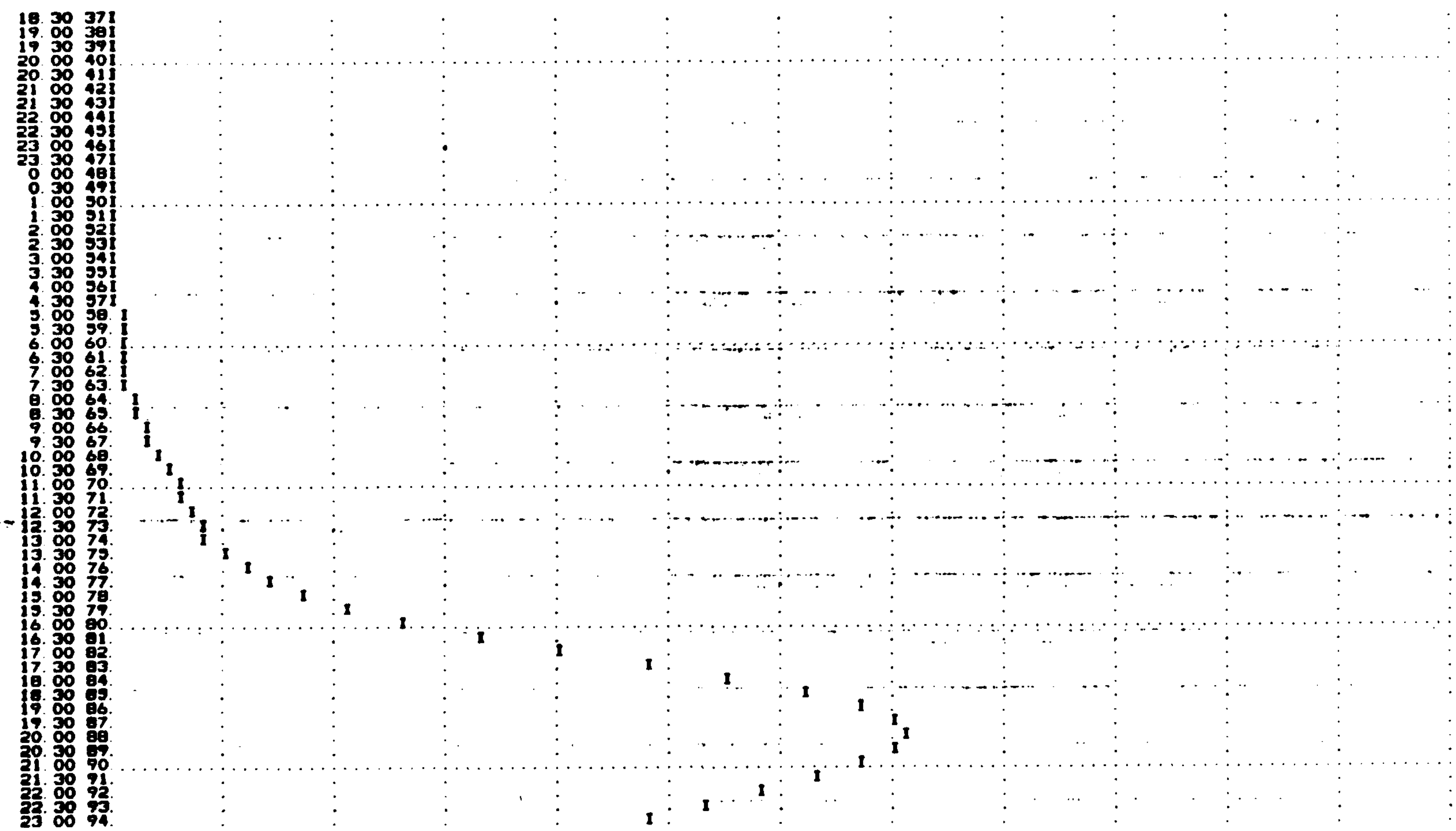
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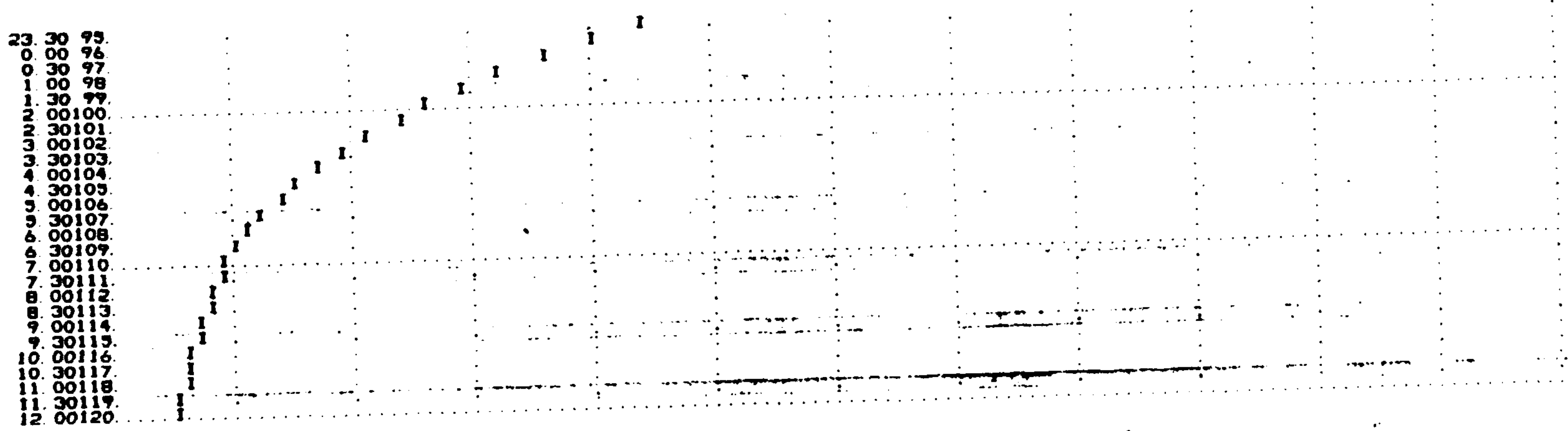
FLAHERTY GIAVARA ASSOCIATES, P.C.



DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

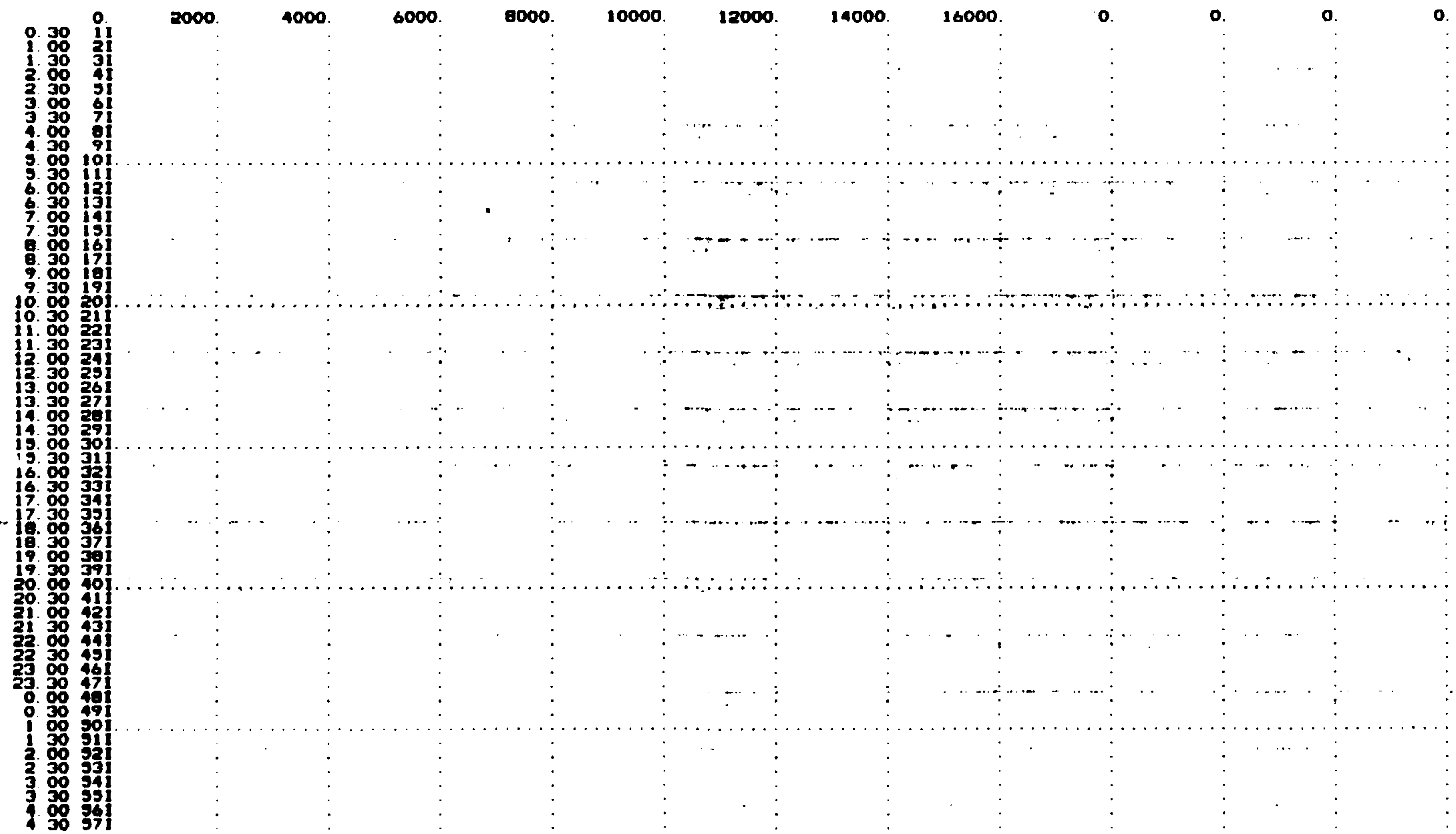
28.	27.	26.	25.	24.	23.	22.	21.	21.	20.
19.	18.	18.	17.	17.	16.	15.	15.	14.	14.
14.	13.	13.	12.	12.	12.	12.	11.	11.	11.
12.	12.	12.	13.	14.	15.	15.	16.	16.	16.
15.	15.	14.	13.	12.	11.	11.	10.	10.	12.
16.	23.	32.	45.	60.	76.	93.	110.	125.	140.
159.	191.	243.	317.	416.	537.	677.	830.	988.	1143.
1289.	1423.	1568.	1761.	2033.	2408.	2909.	3550.	4337.	5388.
6753.	8297.	9894.	11454.	12845.	13915.	14578.	14794.	14570.	13969.
13122.	12147.	11105.	10072.	9106.	8223.	7423.	6702.	6052.	5463.
4927.	4437.	3989.	3579.	3206.	2869.	2587.	2349.	2133.	1939.
1792.	1680.	1576.	1480.	1390.	1307.	1230.	1170.	1123.	1079.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	14794.	12673.	5849.	2412.	289442.
CMS	419.	359.	166.	68.	8196.
INCHES		2.17	4.01	4.13	4.13
MM		55.10	101.74	104.88	104.88
AC-FT		6284.	11602.	11960.	11960.
THOUS CU M		7751.	14311.	14753.	14753.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)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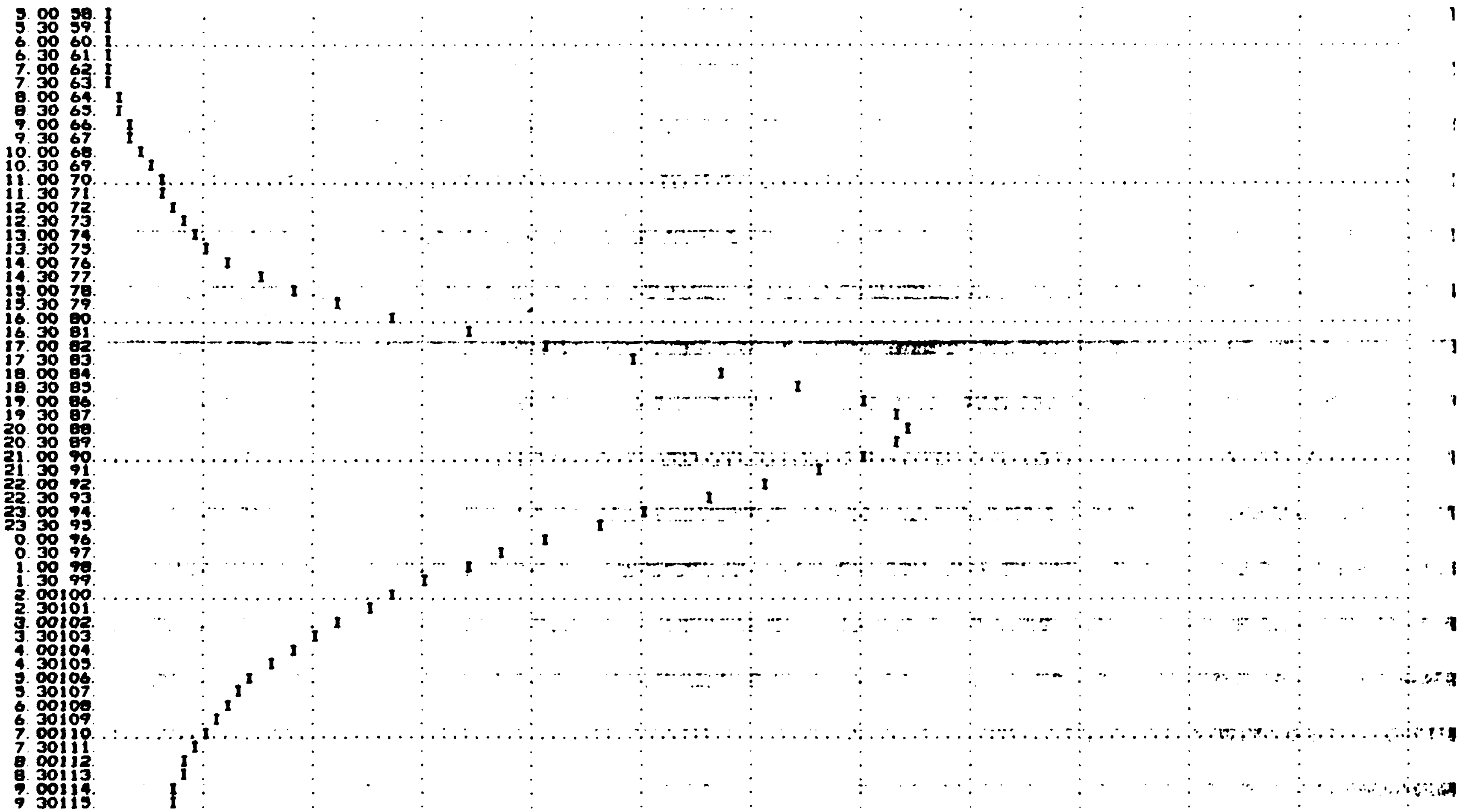
4.30 57I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12.00 72.
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13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
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16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.

```
10.00116.    I
10.30117.   I
11.00118.   I
11.30119.   I
12.00120.  I
```

DVN

```
                                SUM OF 2 HYDROGRAPHS AT        1  PLAN 1  RTIO 5
         29.        28.        27.        26.        25.        24.        23.        22.        21.        21.
         20.        19.        18.        18.        17.        17.        16.        15.        15.        15.
         14.        14.        13.        13.        13.        12.        12.        12.        12.        12.
         12.        12.        13.        14.        14.        15.        16.        16.        16.        16.
         16.        15.        14.        14.        13.        12.        11.        10.        10.        12.
         16.        23.        33.        46.        62.        79.        96.       114.       130.       145.
        165.       198.       252.       329.       431.       557.       702.       861.      1024.      1185.
       1337.      1476.      1626.      1826.      2108.      2497.      3016.      3682.      4498.      5587.
       7004.      8604.     10260.     11878.     13321.     14430.     15118.     15342.     15110.     14486.
      13608.     12597.     11516.     10449.      9443.      8528.      7698.      6950.      6276.      5665.
       5109.      4601.      4137.      3712.      3325.      2979.      2683.      2436.      2212.      2010.
       1858.      1742.      1634.      1535.      1442.      1356.      1276.      1213.      1165.      1119.

                          PEAK    6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
                  CFS    15342.   13142.     6066.     2501.        300162.
                  CMS      434.     372.      172.       71.          8500.
               INCHES               2.25      4.15      4.28           4.28
                   MM              57.14    105.51    108.76         108.76
                AC-FT               6517.    12032.    12403.         12403.
           THOUS CU M               8038.    14841.    15299.         15299.
```

OVF

```
                                          STATION     1

                            INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.      2000.      4000.      6000.      8000.     10000.     12000.     14000.     16000.        0.        0.        0.        0.
  0.30  1I
  1.00  2I
  1.30  3I
  2.00  4I
  2.30  5I
  3.00  6I
  3.30  7I
  4.00  8I
  4.30  9I
  5.00 10I
  5.30 11I
  6.00 12I
  6.30 13I
  7.00 14I
  7.30 15I
  8.00 16I
  8.30 17I
  9.00 18I
  9.30 19I
 10.00 20I
```

10.30	21	I
11.00	22	I
11.30	23	I
12.00	24	I
12.30	25	I
13.00	26	I
13.30	27	I
14.00	28	I
14.30	29	I
15.00	30	I
15.30	31	I
16.00	32	I
16.30	33	I
17.00	34	I
17.30	35	I
18.00	36	I
18.30	37	I
19.00	38	I
19.30	39	I
20.00	40	I
20.30	41	I
21.00	42	I
21.30	43	I
22.00	44	I
22.30	45	I
23.00	46	I
23.30	47	I
0.00	48	I
0.30	49	I
1.00	50	I
1.30	51	I
2.00	52	I
2.30	53	I
3.00	54	I
3.30	55	I
4.00	56	I
4.30	57	I
5.00	58.	I
5.30	59.	I
6.00	60.	I
6.30	61.	I
7.00	62.	I
7.30	63.	I
8.00	64.	I
8.30	65.	I
9.00	66.	I
9.30	67.	I
10.00	68.	I
10.30	69.	I
11.00	70.	I
11.30	71.	I
12.00	72.	I
12.30	73.	I
13.00	74.	I
13.30	75.	I
14.00	76.	I
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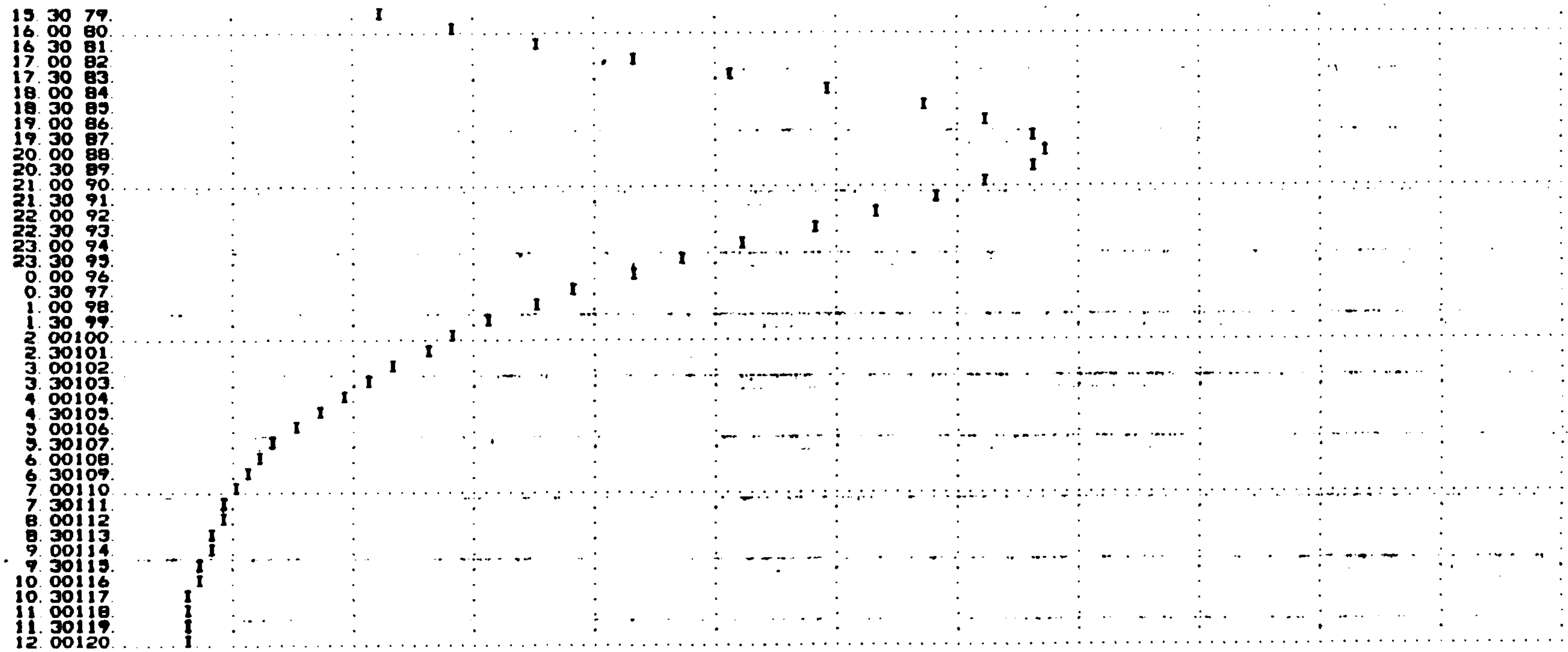

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

30.	29.	28.	27.	26.	25.	24.	23.	22.	21.
21.	20.	19.	18.	18.	17.	17.	16.	16.	15.
15.	14.	14.	13.	13.	13.	12.	12.	12.	12.
12.	13.	13.	14.	15.	16.	16.	17.	17.	17.
16.	16.	15.	14.	13.	12.	11.	11.	11.	12.
17.	24.	35.	48.	64.	81.	100.	118.	135.	150.
171.	205.	261.	341.	447.	577.	727.	891.	1061.	1227.
1384.	1529.	1684.	1891.	2183.	2586.	3124.	3813.	4659.	5787.
7254.	8912.	10627.	12302.	13796.	14945.	15658.	15890.	15650.	15004.

14094.	13047.	11928.	10818.	9781.	8833.	7973.	7198.	6500.	5867.
5292.	4766.	4284.	3845.	3444.	3081.	2779.	2523.	2291.	2082.
1924.	1804.	1693.	1589.	1493.	1404.	1321.	1256.	1206.	1159.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15890.	13611.	6283.	2591.	310882.
CMS	450.	385.	178.	73.	8803.
INCHES		2.33	4.30	4.43	4.43
MM		59.18	109.27	112.65	112.65
AC-FT		6749.	12462.	12846.	12846.
THOUS CU M		8325.	15371.	15846.	15846.

OVF

STATION 1

```
                  INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.    2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   0.   0.   0.   0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
20.30 41I
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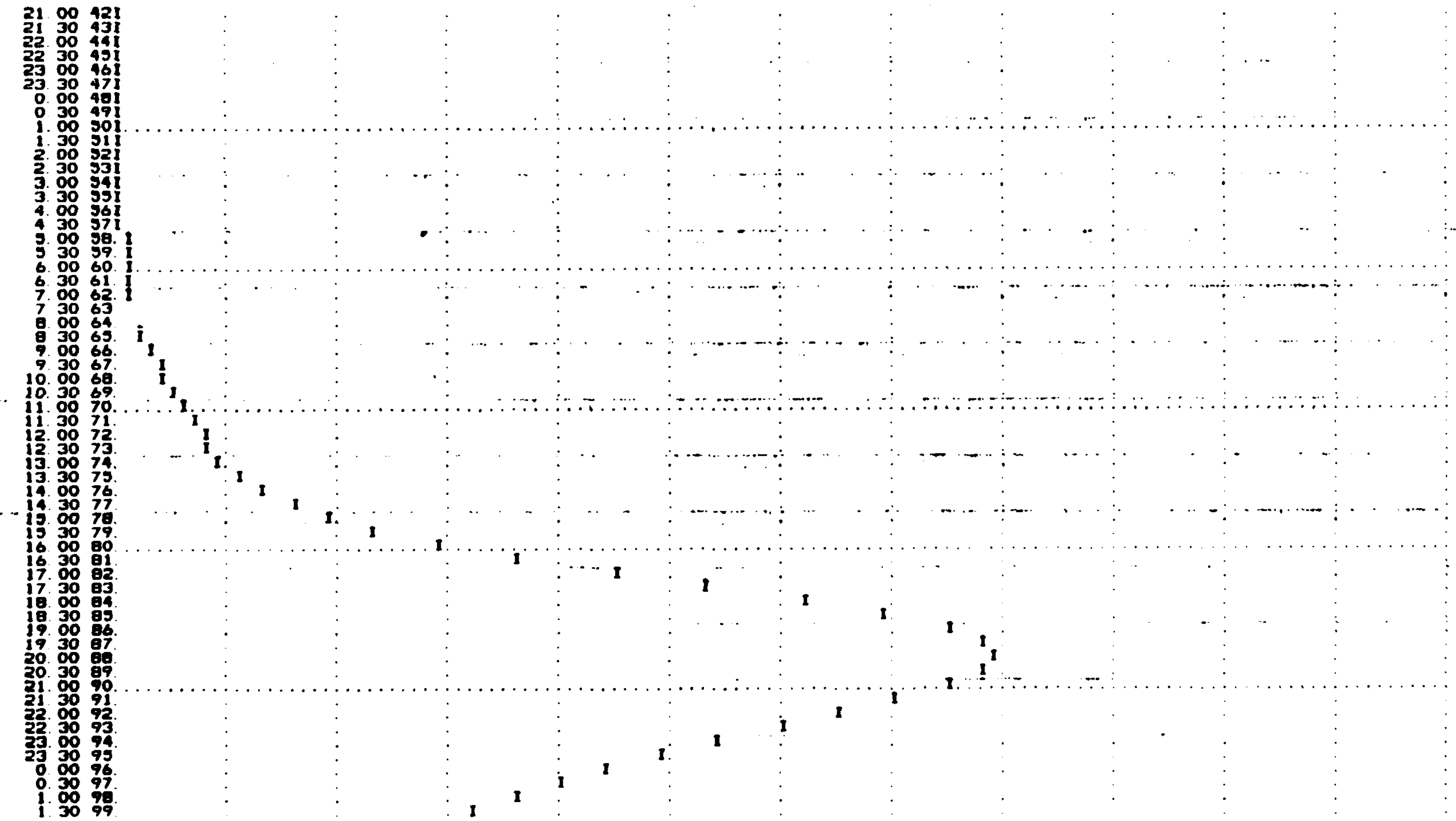
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2.30 53
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3.30 55
4.00 56
4.30 57
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5.30 59
6.00 60
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22.00 92
22.30 93
23.00 94
23.30 95
0.00 96
0.30 97
1.00 98
1.30 99

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 3.30103.     I
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 4.30105.   I
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 6.30109. I
 7.00110.I
 7.30111.I
 8.00112.I
 8.30113.I
 9.00114.I
 9.30115.I
10.00116.I
10.30117.I
11.00118.I
11.30119.I
12.00120.I
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

31.	30.	29.	28.	27.	26.	25.	24.	23.	22.
21.	20.	20.	19.	18.	18.	17.	17.	16.	16.
15.	15.	14.	14.	13.	13.	13.	13.	13.	13.
13.	13.	14.	15.	15.	16.	17.	17.	17.	17.
17.	16.	15.	15.	14.	13.	12.	11.	11.	13.
17.	25.	36.	50.	66.	84.	103.	122.	139.	156.
177.	212.	270.	353.	462.	597.	753.	922.	1097.	1270.
1432.	1581.	1742.	1957.	2259.	2675.	3232.	3945.	4819.	5986.
7504.	9219.	10993.	12726.	14272.	15461.	16198.	16438.	16189.	15921.
14580.	13497.	12339.	11192.	10118.	9137.	8248.	7446.	6724.	6070.
5474.	4930.	4432.	3977.	3563.	3187.	2874.	2610.	2370.	2154.
1991.	1866.	1751.	1644.	1545.	1453.	1367.	1300.	1248.	1198.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16438.	14081.	6499.	2680.	321602.
CMS	465.	399.	184.	76.	9107.
INCHES		2.41	4.45	4.59	4.59
MM		61.22	113.04	116.53	116.53
AC-FT		6982.	12891.	13289.	13289.
THOUS CU M		8612.	15901.	16392.	16392.

OVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.   2000.   4000.   6000.   8000.  10000.  12000.  14000.  16000.  18000.   0.
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1.30  31
2.00  41
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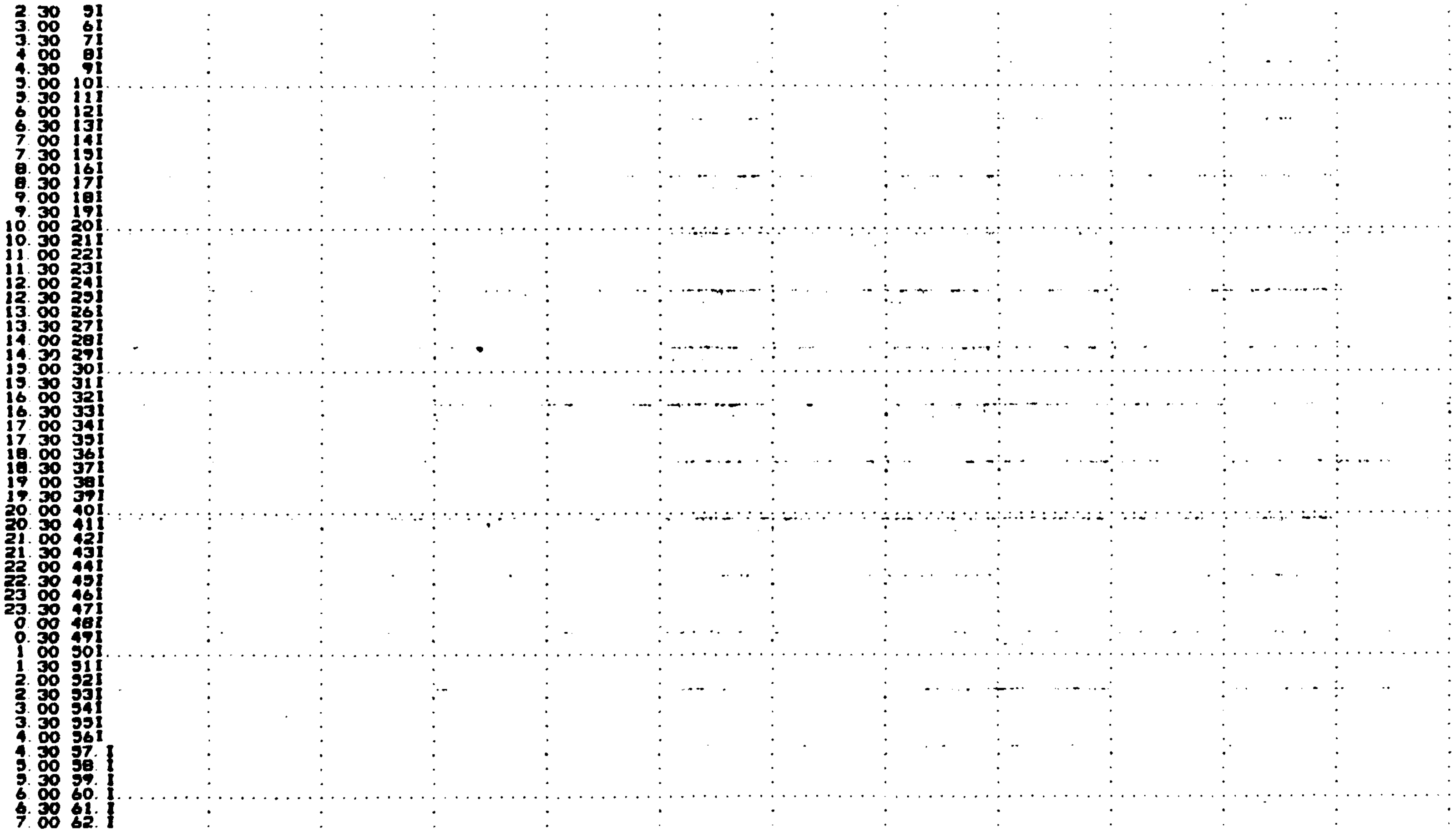
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8.00 16I
8.30 17I
9.00 18I
9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
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17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
0.00 48I
0.30 49I
1.00 50I
1.30 51I
2.00 52I
2.30 53I
3.00 54I
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4.30 57. I
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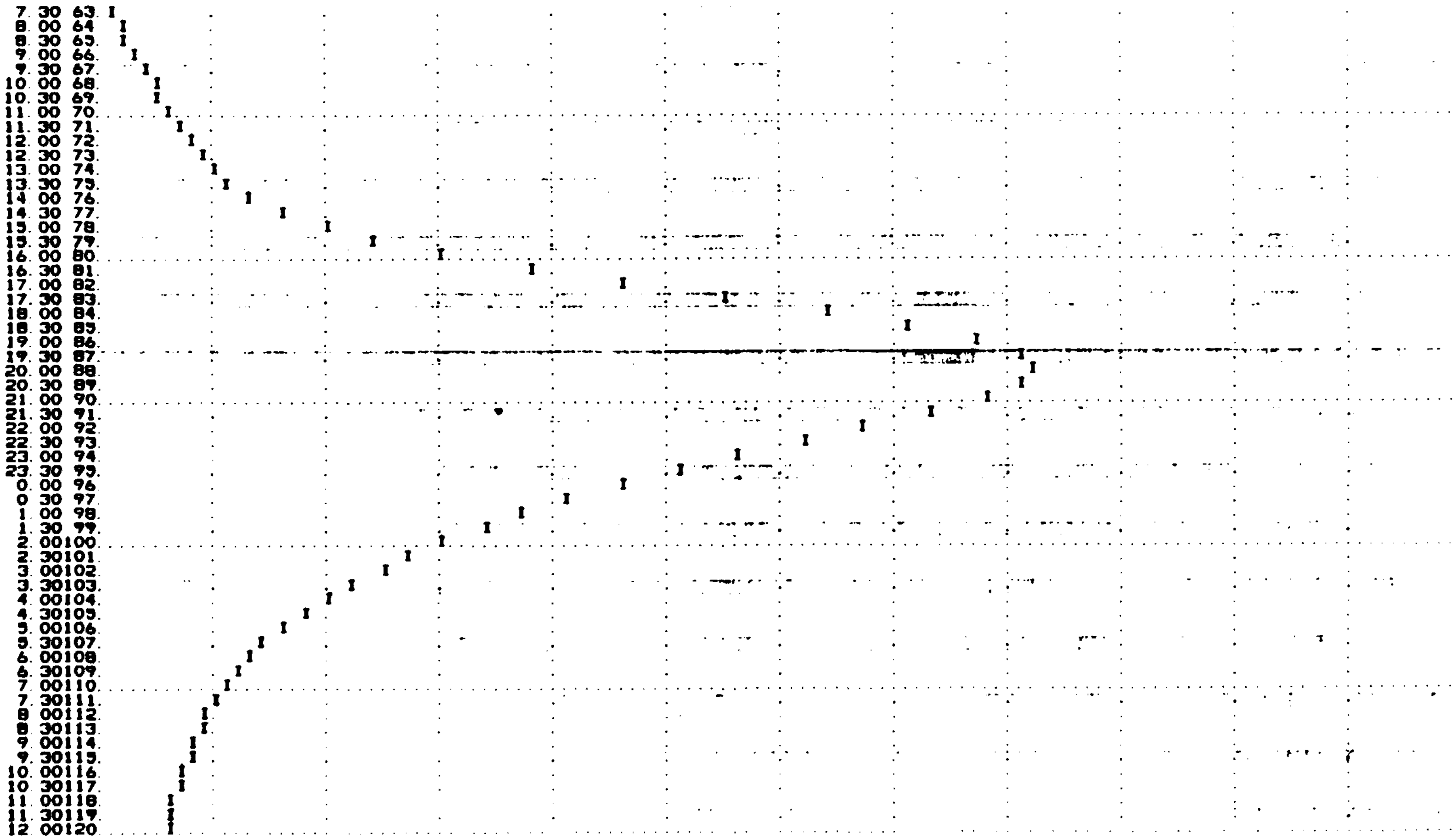
5.30 59. I
6.00 60. I
6.30 61. I
7.00 62. I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12.00 72.
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13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

```
*OVN*

                              SUM OF 2 HYDROGRAPHS AT      1  PLAN 1  RTIO 8
        52.        50.        48.        46.        45.        43.        41.        40.        38.        37.
        35.        34.        33.        32.        31.        30.        29.        28.        27.        26.
        25.        23.        24.        23.        22.        22.        22.        21.        21.        21.
        22.        22.        23.        24.        26.        27.        28.        29.        29.        29.
        28.        27.        26.        24.        23.        21.        20.        18.        18.        21.
        29.        42.        60.        83.       110.       140.       172.       203.       232.       259.
       294.       354.       450.       588.       770.       995.      1254.      1537.      1829.      2116.
      2387.      2636.      2903.      3261.      3764.      4459.      5386.      6575.      8032.      9977.
     12506.     15365.     18322.     21210.     23787.     25768.     26997.     27396.     26982.     25869.
     24299.     22495.     20565.     18653.     16863.     15229.     13747.     12411.     11207.     10116.
      9124.      8217.      7387.      6628.      5938.      5312.      4791.      4350.      3950.      3590.
      3318.      3111.      2919.      2740.      2575.      2421.      2278.      2166.      2080.      1997.

                        PEAK     6-HOUR    24-HOUR    72-HOUR   TOTAL VOLUME
              CFS     27396.     23468.     10832.      4467.       536004.
              CMS       776.       665.       307.       126.        15178.
           INCHES                  4.02       7.42       7.65          7.65
               MM                102.04     188.40     194.22        194.22
            AC-FT                11637.     21486.     22149.        22149.
       THOUS CU M                14354.     26502.     27320.        27320.

*OVF*
                                    STATION      1

                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
             0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.        0.        0.        0.        0.        0.
  0 30   1I
  1 00   2I
  1 30   3I
  2 00   4I
  2 30   5I
  3 00   6I
  3 30   7I
  4 00   8I
  4 30   9I
  5 00  10I
  5 30  11I
  6 00  12I
  6 30  13I
  7 00  14I
  7 30  15I
  8 00  16I
  8 30  17I
  9 00  18I
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 11 30  23I
 12 00  24I
 12 30  25I
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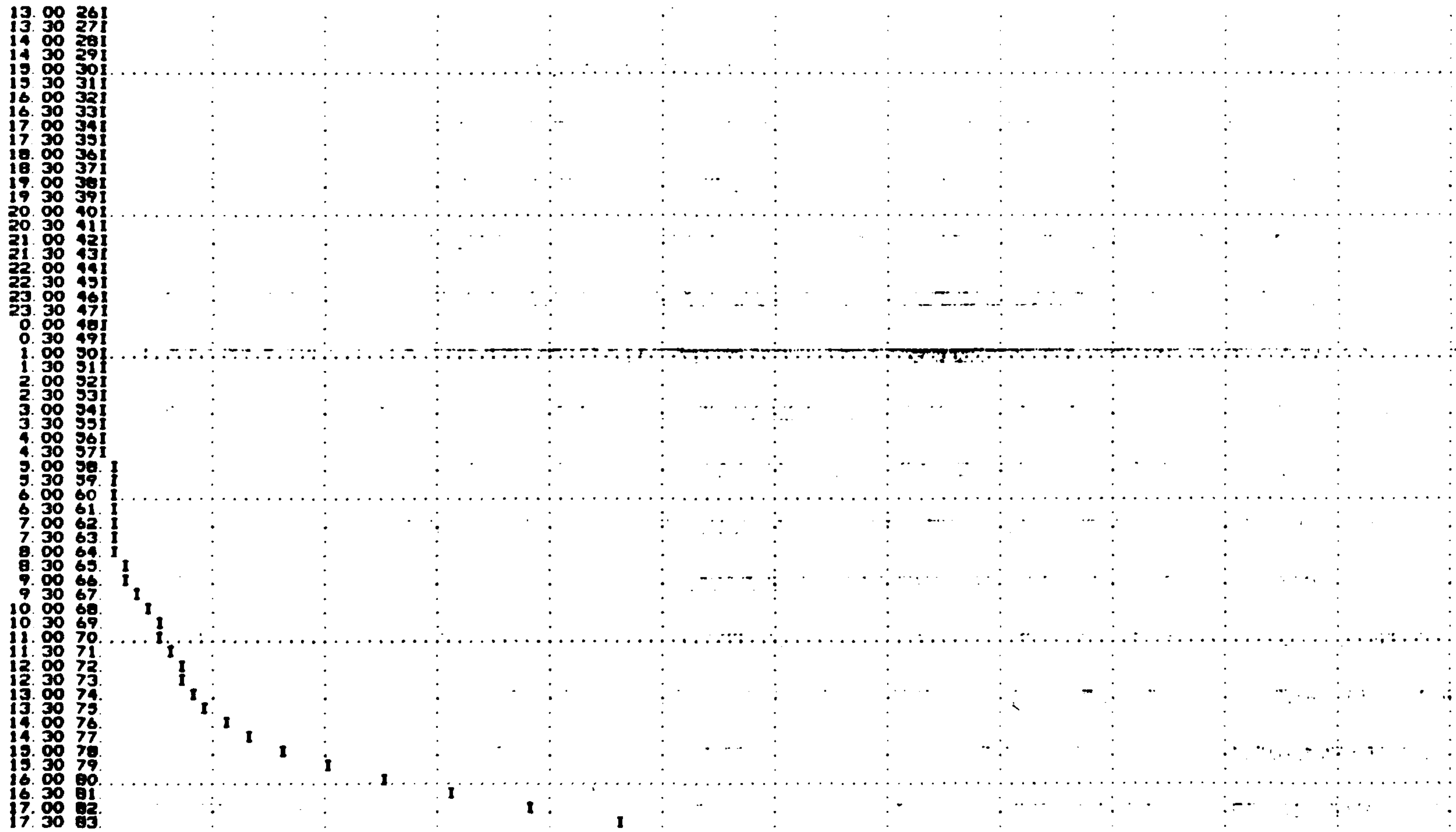
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19.30 39
20.00 40
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21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
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4.30 57
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6.00 60
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
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9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
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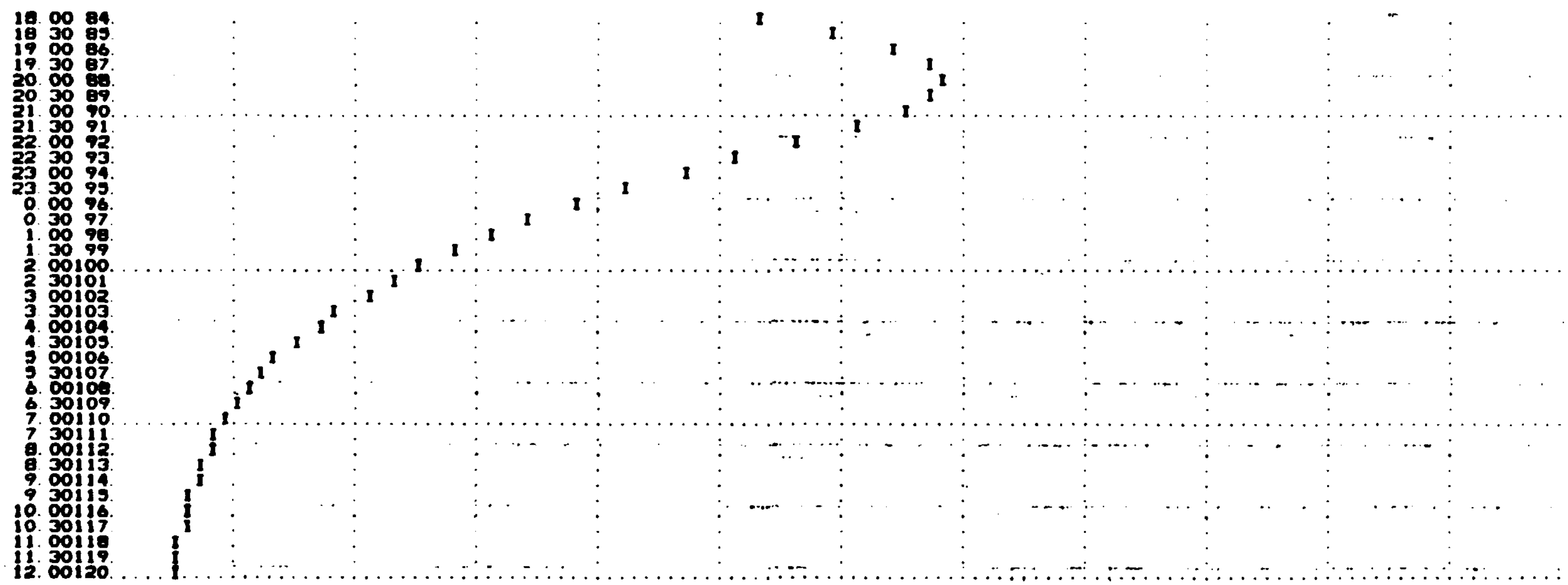
17.30 83.



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

104.	100.	76.	93.	89.	86.	82.	79.	76.	74.
71.	68.	66.	63.	61.	59.	57.	55.	54.	52.
50.	49.	48.	46.	45.	44.	43.	42.	42.	42.
43.	44.	46.	49.	51.	54.	56.	58.	58.	58.
56.	54.	52.	49.	45.	42.	39.	37.	37.	43.
58.	83.	120.	166.	220.	281.	344.	406.	465.	519.
588.	708.	900.	1175.	1540.	1990.	2509.	3074.	3657.	4232.
4774.	5271.	5807.	6522.	7529.	8918.	10772.	13150.	16065.	19955.
25013.	30730.	36643.	42421.	47574.	51536.	53993.	54793.	53964.	51737.
48598.	44989.	41130.	37305.	33726.	30457.	27494.	24821.	22413.	20232.
18247.	16434.	14774.	13257.	11876.	10625.	9581.	8699.	7901.	7180.
6636.	6221.	5837.	5481.	5150.	4842.	4557.	4332.	4160.	3995.

PEAK 6-HOUR 24-HOUR 72-HOUR TOTAL VOLUME

FLAHERTY GIAVARA ASSOCIATES, P.C.

CFS	54793.	46935.	21665.	8933.	1072008.
CMS	1552.	1329.	613.	253.	30356.
INCHES		8.03	14.83	15.29	15.29
MM		204.08	376.81	388.44	388.44
AC-FT		23274.	42971.	44298.	44298.
THOUS CU M		28708.	53004.	54641.	54641.

OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
         0.     5000.    10000.    15000.    20000.    25000.    30000.    35000.    40000.    45000.    50000.    55000.        0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I.......................................................................................................................
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
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11.00  22I
11.30  23I
12.00  24I
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13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I.......................................................................................................................
15.30  31I
16.00  32I
16.30  33I
17.00  34I
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18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I.......................................................................................................................
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21.00  42I
21.30  43I
22.00  44I
22.30  45I
23.00  46I
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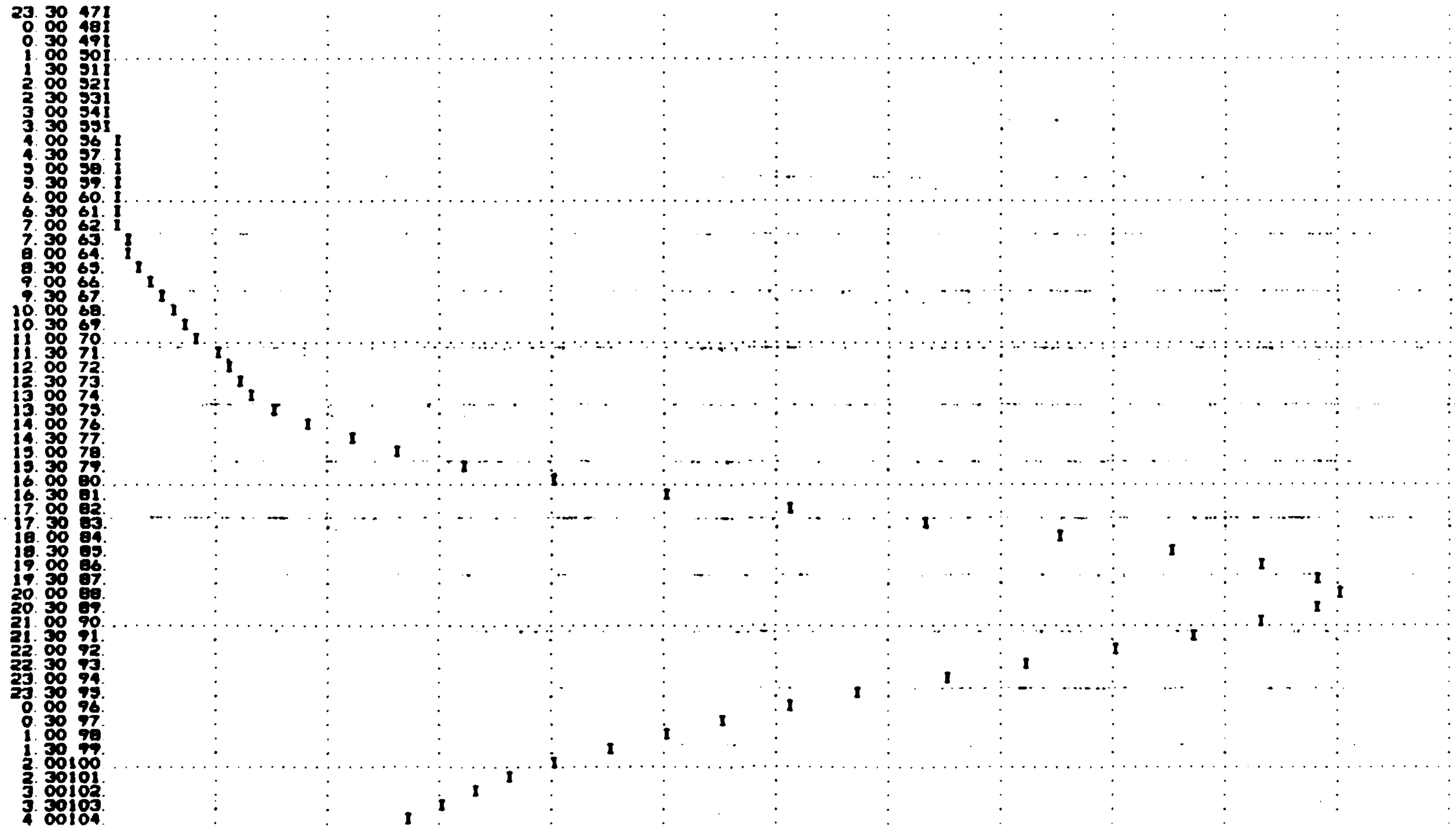
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1.30 99
2.00 100
2.30 101
3.00 102
3.30 103
4.00 104

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 4.30105.          .    .    I    .         .         .         .         .         .         .         .         .
 5.00106           .         I    .         .         .         .         .         .         .         .         .
 5.30107           .        I.    .         .         .         .         .         .         .         .         .
 6.00108           .       I      .         .         .         .         .         .         .         .         .
 6.30109           .      I       .         .         .         .         .         .         .         .         .
 7.00110. . . . . . . . .I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 7.30111          .    I          .         .         .         .         .         .         .         .         .
 8.00112          .   I           .         .         .         .         .         .         .         .         .
 8.30113.         .   I           .         .         .         .         .         .         .         .         .
 9.00114          .  I            .         .         .         .         .         .         .         .         .
 9.30115.         . I             .         .         .         .         .         .         .         .         .
10.00116.         . I             .         .         .         .         .         .         .         .         .
10.30117.        I.               .         .         .         .         .         .         .         .         .
11.00118.        I.               .         .         .         .         .         .         .         .         .
11.30119.       I .               .         .         .         .         .         .         .         .         .
12.00120. . . . I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

*OVN*

          **********          **********          **********          **********          **********
                                        SUB-AREA RUNOFF COMPUTATION

                        INFLOW HYDROGRAPH - SUBWATERSHED NO. 4
                                    ISTAQ    ICOMP    IECON    ITAPE     JPLT     JPRT    INAME   ISTAGE    IAUTO
                                        1        0        0        0        0        0        1        0        0

                                                       HYDROGRAPH DATA
                        IHYDG     IUHG    TAREA     SNAP    TRSDA    TRSPC    RATIO    ISNOW    ISAME    LOCAL
                            1        1     4.77     0.00     4.77     0.00    0.000        0        0        0

                                                          PRECIP DATA
                                     SPFE      PMS       R6      R12      R24      R48      R72      R96
                                     0.00    19.30    86.00   100.00   112.00   119.00     0.00     0.00
TRSPC COMPUTED BY THE PROGRAM IS 0.800

                                                            LOSS DATA
                   LROPT    STRKR    DLTKR    RTIOL    ERAIN    STRKS    RTIOK    STRTL    CNSTL    ALSMX    RTIMP
                       0     0.00     0.00     1.00     0.00     0.00     1.00     1.00     0.10     0.00     0.01

                                                     UNIT HYDROGRAPH DATA
                                             TP=  3.87      CP=0.63      NTA=   0

                                                        RECESSION DATA
                                       STRTQ=    -2.00     QRCSN=    -0.10     RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 8.75 AND R= 7.04 INTERVALS

                   UNIT HYDROGRAPH 42 END-OF-PERIOD ORDINATES, LAG=   3.87 HOURS, CP= 0.63  VOL= 1.00
                     22.        82.       169.       258.       354.       435.       488.       510.       494.       443.
                    384.       334.       289.       251.       218.       189.       164.       142.       123.       107.
                     93.        80.        70.        61.        53.        46.        40.        34.        30.        26.
                     22.        19.        17.        15.        13.        11.        10.         8.         7.         6.
                      5.         5.
```

END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	9.	1.02	6.30	61	0.18	0.13	0.05	56.
1.01	1.00	2	0.00	0.00	0.00	9.	1.02	7.00	62	0.18	0.13	0.05	69.
1.01	1.30	3	0.00	0.00	0.00	8.	1.02	7.30	63	0.18	0.13	0.05	91.
1.01	2.00	4	0.00	0.00	0.00	8.	1.02	8.00	64	0.18	0.13	0.05	124.
1.01	2.30	5	0.00	0.00	0.00	8.	1.02	8.30	65	0.18	0.13	0.05	168.
1.01	3.00	6	0.00	0.00	0.00	8.	1.02	9.00	66	0.18	0.13	0.05	221.
1.01	3.30	7	0.00	0.00	0.00	7.	1.02	9.30	67	0.18	0.13	0.05	280.
1.01	4.00	8	0.00	0.00	0.00	7.	1.02	10.00	68	0.18	0.13	0.05	342.
1.01	4.30	9	0.00	0.00	0.00	7.	1.02	10.30	69	0.18	0.13	0.05	401.
1.01	5.00	10	0.00	0.00	0.00	6.	1.02	11.00	70	0.18	0.13	0.05	455.
1.01	5.30	11	0.00	0.00	0.00	6.	1.02	11.30	71	0.18	0.13	0.05	501.
1.01	6.00	12	0.00	0.00	0.00	6.	1.02	12.00	72	0.18	0.13	0.05	541.
1.01	6.30	13	0.01	0.00	0.01	6.	1.02	12.30	73	0.66	0.61	0.05	587.
1.01	7.00	14	0.01	0.00	0.01	6.	1.02	13.00	74	0.66	0.61	0.05	657.
1.01	7.30	15	0.01	0.00	0.01	5.	1.02	13.30	75	0.80	0.75	0.05	766.
1.01	8.00	16	0.01	0.00	0.01	5.	1.02	14.00	76	0.80	0.75	0.05	924.
1.01	8.30	17	0.01	0.00	0.01	5.	1.02	14.30	77	1.00	0.95	0.05	1142.
1.01	9.00	18	0.01	0.00	0.01	5.	1.02	15.00	78	1.00	0.95	0.05	1420.
1.01	9.30	19	0.01	0.00	0.01	5.	1.02	15.30	79	1.21	1.16	0.05	1756.
1.01	10.00	20	0.01	0.00	0.01	5.	1.02	16.00	80	3.83	3.79	0.05	2201.
1.01	10.30	21	0.01	0.00	0.01	4.	1.02	16.30	81	0.93	0.88	0.05	2773.
1.01	11.00	22	0.01	0.00	0.01	4.	1.02	17.00	82	0.93	0.88	0.05	3401.
1.01	11.30	23	0.01	0.00	0.01	4.	1.02	17.30	83	0.73	0.68	0.05	4028.
1.01	12.00	24	0.01	0.00	0.01	4.	1.02	18.00	84	0.73	0.68	0.05	4614.
1.01	12.30	25	0.04	0.00	0.04	4.	1.02	18.30	85	0.09	0.04	0.05	5080.
1.01	13.00	26	0.04	0.00	0.04	4.	1.02	19.00	86	0.09	0.04	0.05	5361.
1.01	13.30	27	0.05	0.00	0.05	4.	1.02	19.30	87	0.09	0.04	0.05	5438.
1.01	14.00	28	0.05	0.00	0.05	4.	1.02	20.00	88	0.09	0.04	0.05	5292.
1.01	14.30	29	0.06	0.00	0.06	4.	1.02	20.30	89	0.09	0.04	0.05	4948.
1.01	15.00	30	0.06	0.00	0.06	4.	1.02	21.00	90	0.09	0.04	0.05	4508.
1.01	15.30	31	0.08	0.00	0.07	4.	1.02	21.30	91	0.09	0.04	0.05	4047.
1.01	16.00	32	0.24	0.00	0.24	4.	1.02	22.00	92	0.09	0.04	0.05	3588.
1.01	16.30	33	0.06	0.00	0.06	4.	1.02	22.30	93	0.09	0.04	0.05	3156.
1.01	17.00	34	0.06	0.00	0.06	5.	1.02	23.00	94	0.09	0.04	0.05	2773.
1.01	17.30	35	0.05	0.00	0.05	5.	1.02	23.30	95	0.09	0.04	0.05	2441.
1.01	18.00	36	0.05	0.00	0.05	5.	1.03	0.00	96	0.09	0.04	0.05	2152.
1.01	18.30	37	0.01	0.00	0.01	5.	1.03	0.30	97	0.00	0.00	0.00	1901.
1.01	19.00	38	0.01	0.00	0.01	6.	1.03	1.00	98	0.00	0.00	0.00	1681.
1.01	19.30	39	0.01	0.00	0.01	6.	1.03	1.30	99	0.00	0.00	0.00	1485.
1.01	20.00	40	0.01	0.00	0.01	5.	1.03	2.00	100	0.00	0.00	0.00	1311.
1.01	20.30	41	0.01	0.00	0.01	5.	1.03	2.30	101	0.00	0.00	0.00	1154.
1.01	21.00	42	0.01	0.00	0.01	5.	1.03	3.00	102	0.00	0.00	0.00	1012.
1.01	21.30	43	0.01	0.00	0.01	4.	1.03	3.30	103	0.00	0.00	0.00	884.
1.01	22.00	44	0.01	0.00	0.01	4.	1.03	4.00	104	0.00	0.00	0.00	769.
1.01	22.30	45	0.01	0.00	0.01	4.	1.03	4.30	105	0.00	0.00	0.00	667.
1.01	23.00	46	0.01	0.00	0.01	3.	1.03	5.00	106	0.00	0.00	0.00	578.
1.01	23.30	47	0.01	0.00	0.01	3.	1.03	5.30	107	0.00	0.00	0.00	532.
1.02	0.00	48	0.01	0.00	0.01	3.	1.03	6.00	108	0.00	0.00	0.00	511
1.02	0.30	49	0.06	0.01	0.05	3.	1.03	6.30	109	0.00	0.00	0.00	490.
1.02	1.00	50	0.06	0.01	0.05	4.	1.03	7.00	110	0.00	0.00	0.00	471.
1.02	1.30	51	0.06	0.01	0.05	6.	1.03	7.30	111	0.00	0.00	0.00	452.
1.02	2.00	52	0.06	0.01	0.05	9.	1.03	8.00	112	0.00	0.00	0.00	434
1.02	2.30	53	0.06	0.01	0.05	13.	1.03	8.30	113	0.00	0.00	0.00	417.
1.02	3.00	54	0.06	0.01	0.05	18.	1.03	9.00	114	0.00	0.00	0.00	400.
1.02	3.30	55	0.06	0.01	0.05	24.	1.03	9.30	115	0.00	0.00	0.00	385.
1.02	4.00	56	0.06	0.01	0.05	30.	1.03	10.00	116	0.00	0.00	0.00	369

1.02	4.30	57	0.06	0.01	0.05	36.	1.03	10.30	117	0.00	0.00	0.00	355.
1.02	5.00	58	0.06	0.01	0.05	41.	1.03	11.00	118	0.00	0.00	0.00	341.
1.02	5.30	59	0.06	0.01	0.05	46.	1.03	11.30	119	0.00	0.00	0.00	327.
1.02	6.00	60	0.06	0.01	0.05	50.	1.03	12.00	120	0.00	0.00	0.00	314.
									SUM	18.37	14.93	3.45	94073.
										(467.)	(379.)	(88.)	(2663.85)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5438.	4439.	1893.	783.	93912.
CMS	154.	126.	54.	22.	2659.
INCHES		8.66	14.76	15.26	15.26
MM		219.89	374.99	387.66	387.66
AC-FT		2201.	3754.	3881.	3881.
THOUS CU M		2715.	4630.	4787.	4787.

DVF

STATION 1

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                  INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    1000.   2000.   3000.   4000.   5000.   6000.    0.      0.      0.      0.      0.      0.
                                                                              PRECIP(L) AND EXCESS(X)
          0.      0.      0.      0.      0.      0.      0.      0.      4.      3.      2.      1.      0.
 0.30  1I                                                                                             L
 1.00  2I                                                                                             L
 1.30  3I                                                                                             L
 2.00  4I                                                                                             L
 2.30  5I                                                                                             L
 3.00  6I                                                                                             L
 3.30  7I                                                                                             L
 4.00  8I                                                                                             L
 4.30  9I                                                                                             L
 5.00 10I.............................................................................................L
 5.30 11I                                                                                             L
 6.00 12I                                                                                             L
 6.30 13I                                                                                             L
 7.00 14I                                                                                             L
 7.30 15I                                                                                             L
 8.00 16I                                                                                             L
 8.30 17I                                                                                             L
 9.00 18I                                                                                             L
 9.30 19I                                                                                             L
10.00 20I.............................................................................................L
10.30 21I                                                                                             L
11.00 22I                                                                                             L
11.30 23I                                                                                             L
12.00 24I                                                                                             L
12.30 25I                                                                                             L
13.00 26I                                                                                             L
13.30 27I                                                                                             L
14.00 28I                                                                                             L
14.30 29I                                                                                            LX
15.00 30I............................................................................................LX
15.30 31I                                                                                            LX
16.00 32I                                                                                           LLX
16.30 33I                                                                                            LX
17.00 34I                                                                                            LX
17.30 35I                                                                                             L
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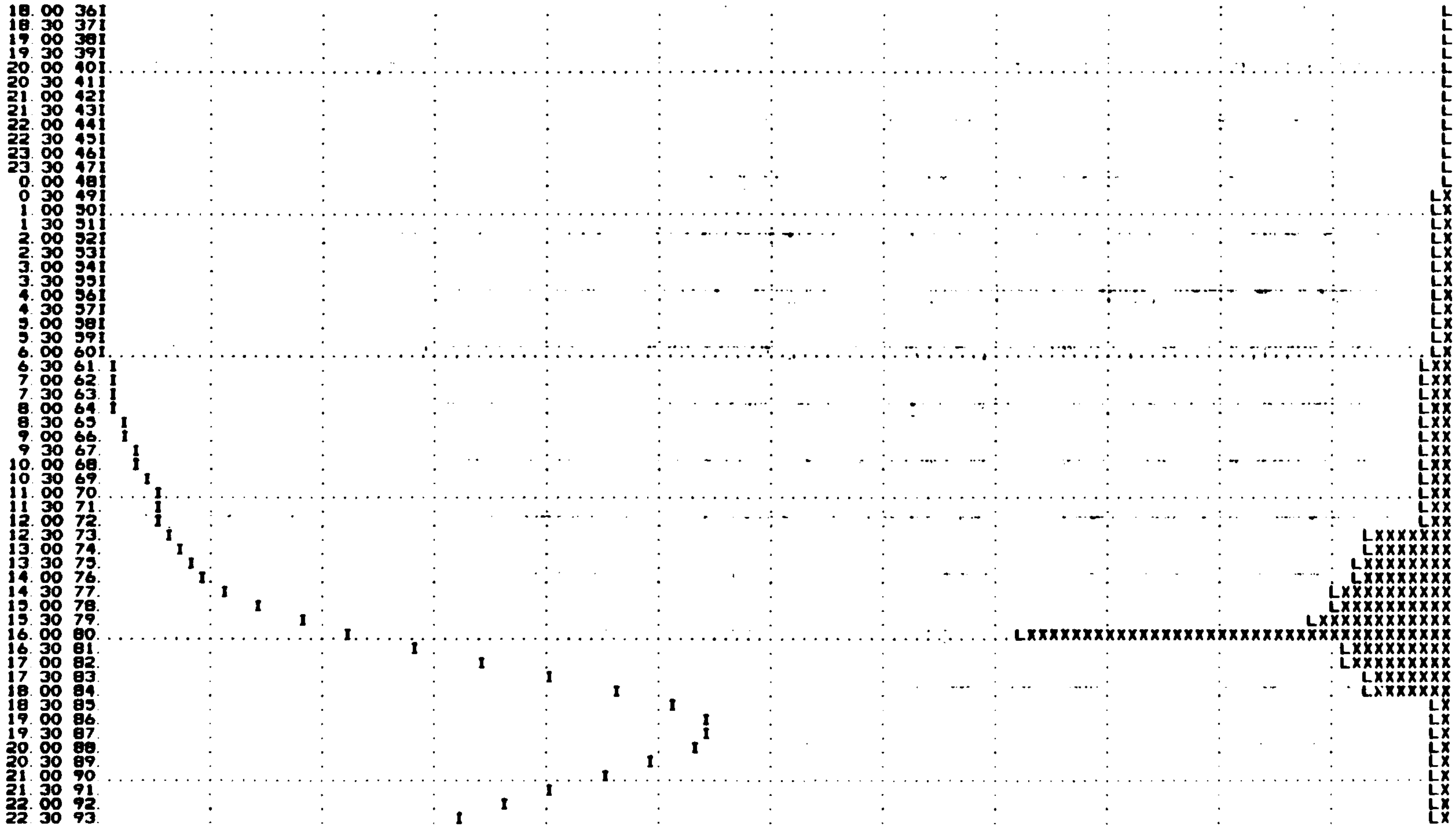
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18.30 85
19.00 86
19.30 87
20.00 88
20.30 89
21.00 90
21.30 91
22.00 92
22.30 93

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23.00 94.                    I                                                                       LX
23.30 95.                  I                                                                         LX
 0.00 96.                I                                                                           LX
 0.30 97.              I                                                                             L
 1.00 98.            I                                                                               L
 1.30 99.          I                                                                                 L
 2.00100. ......I....................................................................................L
 2.30101.     I                                                                                      L
 3.00102.    I                                                                                       L
 3.30103.   I                                                                                        L
 4.00104.   I                                                                                        L
 4.30105.  I                                                                                         L
 5.00106.  I                                                                                         L
 5.30107. I                                                                                          L
 6.00108. I                                                                                          L
 6.30109. I                                                                                          L
 7.00110. I..........................................................................................L
 7.30111. I                                                                                          L
 8.00112. I                                                                                          L
 8.30113. I                                                                                          L
 9.00114. I                                                                                          L
 9.30115. I                                                                                          L
10.00116. I                                                                                          L
10.30117. I                                                                                          L
11.00118. I                                                                                          L
11.30119. I                                                                                          L
12.00120. I..........................................................................................L
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OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

2.	2.	2.	2.	2.	2.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	2.	3.	4.	5.	6.	7.	8.	9.	10.
11.	14.	18.	25.	34.	44.	56.	68.	80.	91.
100.	108.	117.	131.	153.	185.	228.	284.	351.	440.
555.	680.	806.	923.	1016.	1072.	1088.	1058.	990.	902.
809.	718.	631.	555.	488.	430.	380.	336.	297.	262.
231.	202.	177.	154.	133.	116.	106.	102.	98.	94.
90.	87.	83.	80.	77.	74.	71.	68.	65.	63.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1088.	888.	379.	157.	18782.
CMS	31.	25.	11.	4.	532.
INCHES		1.73	2.95	3.05	3.05
MM		43.98	75.00	77.53	77.53
AC-FT		440.	751.	776.	776.
THOUS CU M		543.	926.	957.	957.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.

1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	2.	3.	4.	6.	7.	9.	10.	11.	12.
14.	17.	23.	31.	42.	55.	70.	85.	100.	114.
125.	135.	147.	164.	191.	231.	285.	355.	439.	550.
693.	850.	1007.	1153.	1270.	1340.	1360.	1323.	1237.	1127.
1012.	897.	789.	693.	610.	538.	475.	420.	371.	328.
288.	253.	221.	192.	167.	145.	133.	128.	123.	118.
113.	109.	104.	100.	96.	92.	89.	85.	82.	78.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1360.	1110.	473.	196.	23478.
CMS	38.	31.	13.	6.	665.
INCHES		2.16	3.69	3.82	3.82
MM		54.97	93.75	96.91	96.91
AC-FT		550.	938.	970.	970.
THOUS CU M		679.	1158.	1197.	1197.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	2.	3.	5.	6.	8.	9.	11.	12.	13.
15.	18.	24.	32.	44.	57.	73.	89.	104.	118.
130.	141.	153.	171.	199.	240.	297.	369.	456.	572.
721.	884.	1047.	1200.	1321.	1394.	1414.	1376.	1286.	1172.
1052.	933.	821.	721.	635.	560.	494.	437.	386.	341.
300.	263.	230.	200.	174.	150.	138.	133.	128.	122.
118.	113.	108.	104.	100.	96.	92.	89.	85.	82.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1414.	1154.	492.	203.	24417.
CMS	40.	33.	14.	6.	691.
INCHES		2.25	3.84	3.97	3.97
MM		57.17	97.50	100.79	100.79
AC-FT		572.	976.	1009.	1009.
THOUS CU M		706.	1204.	1245.	1245.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	2.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	2.	3.	5.	6.	8.	10.	11.	12.	13.
15.	19.	25.	33.	45.	60.	76.	92.	108.	123.
135.	146.	158.	177.	207.	250.	308.	383.	474.	594.
749.	918.	1088.	1246.	1372.	1447.	1468.	1429.	1336.	1217.
1093.	969.	852.	749.	659.	581.	513.	454.	401.	354.
312.	273.	239.	208.	180.	156.	144.	138.	132.	127.
122.	117.	113.	108.	104.	100.	96.	92.	88.	85.

PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME

CFS	1468.	1199.	511.	211.	25356.
CMS	42.	34.	14.	6.	718.
INCHES		2.34	3.99	4.12	4.12
MM		59.37	101.25	104.67	104.67
AC-FT		594.	1014.	1048.	1048.
THOUS CU M		733.	1250.	1292.	1292.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

3.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	2.	4.	5.	7.	8.	10.	12.	13.	14.
16.	19.	25.	35.	47.	62.	78.	96.	112.	127.
140.	152.	164.	184.	214.	257.	320.	398.	492.	616.
777.	952.	1128.	1292.	1422.	1501.	1523.	1482.	1385.	1262.
1133.	1005.	884.	776.	683.	603.	532.	471.	416.	367.
323.	283.	248.	215.	187.	162.	149.	143.	137.	132.
127.	122.	117.	112.	108.	103.	99.	95.	92.	88.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1523.	1243.	530.	219.	26295.
CMS	43.	35.	15.	6.	745.
INCHES		2.42	4.13	4.27	4.27
MM		61.57	105.00	108.54	108.54
AC-FT		616.	1051.	1087.	1087.
THOUS CU M		760.	1296.	1340.	1340.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

3.	3.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	2.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	5.	7.	9.	10.	12.	13.	14.
16.	20.	26.	36.	49.	64.	81.	99.	116.	132.
145.	157.	170.	190.	222.	268.	331.	412.	509.	638.
804.	986.	1168.	1338.	1473.	1595.	1577.	1535.	1435.	1307.
1174.	1040.	915.	804.	708.	624.	551.	487.	431.	380.
335.	294.	256.	223.	194.	168.	154.	148.	142.	137.
131.	126.	121.	116.	112.	107.	103.	99.	95.	91.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1577.	1287.	549.	227.	27235.
CMS	45.	36.	16.	6.	771.
INCHES		2.51	4.28	4.43	4.43
MM		63.77	108.75	112.42	112.42
AC-FT		638.	1089.	1125.	1125.
THOUS CU M		787.	1343.	1388.	1388.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.

FLAHERTY GIAVARA ASSOCIATES, P.C.

1.	1.	1.	1.	2.	2.	2.	2.	2.	2.
2.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	9.	7.	9.	11.	12.	14.	15.
17.	21.	27.	37.	50.	66.	84.	102.	120.	136.
150.	162.	176.	197.	230.	277.	343.	426.	527.	660.
832.	1020.	1208.	1384.	1524.	1608.	1631.	1588.	1484.	1353.
1214.	1076.	947.	832.	732.	646.	570.	504.	446.	393.
346.	304.	265.	231.	200.	174.	160.	153.	147.	141.
136.	130.	125.	120.	115.	111.	106.	102.	98.	94.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1631.	1332.	568.	235.	28174.
CMS	46.	38.	16.	7.	798.
INCHES		2.60	4.43	4.58	4.58
MM		65.97	112.50	116.30	116.30
AC-FT		660.	1126.	1164.	1164.
THOUS CU M		815.	1389.	1436.	1436.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

5.	4.	4.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	3.	3.	3.	3.	3.	3.
3.	2.	2.	2.	2.	2.	2.	1.	1.	2.
3.	4.	6.	9.	12.	15.	18.	21.	23.	25.
28.	34.	45.	62.	84.	110.	140.	171.	201.	227.
250.	271.	293.	328.	383.	462.	571.	710.	878.	1100.
1387.	1700.	2014.	2307.	2540.	2680.	2719.	2646.	2474.	2254.
2023.	1794.	1578.	1387.	1220.	1076.	951.	840.	743.	655.
577.	506.	442.	385.	334.	289.	266.	255.	245.	235.
226.	217.	209.	200.	192.	185.	177.	170.	163.	157.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2719.	2220.	946.	391.	46956.
CMS	77.	63.	27.	11.	1330.
INCHES		4.33	7.38	7.63	7.63
MM		109.94	187.49	193.83	193.83
AC-FT		1101.	1877.	1940.	1940.
THOUS CU M		1358.	2315.	2393.	2393.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

9.	9.	8.	8.	8.	8.	7.	7.	7.	6.
6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	5.	5.	5.	5.	6.	6.	5.
5.	5.	4.	4.	4.	3.	3.	3.	3.	4.
6.	7.	13.	18.	24.	30.	36.	41.	46.	50.
56.	69.	91.	124.	168.	221.	280.	342.	401.	455.
501.	541.	587.	657.	766.	924.	1142.	1420.	1756.	2201.
2773.	3401.	4028.	4614.	5080.	5361.	5438.	5292.	4948.	4508.
4047.	3988.	3156.	2773.	2441.	2152.	1901.	1681.	1485.	1311.
1154.	1012.	884.	769.	667.	578.	532.	511.	490.	471.
452.	434.	417.	400.	385.	369.	355.	341.	327.	314.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5438.	4439.	1893.	783.	93912.

CMS	154.	126.	54.	22.	2659.
INCHES		8.66	14.76	15.26	15.26
MM		219.89	374.99	387.66	387.66
AC-FT		2201.	3734.	3881.	3881.
THOUS CU M		2715.	4630.	4787.	4787.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

23.	22.	21.	20.	19.	19.	18.	17.	17.	16.
15.	15.	14.	14.	13.	13.	12.	12.	12.	11.
11.	11.	10.	10.	10.	10.	9.	9.	9.	9.
9.	10.	10.	11.	11.	12.	12.	13.	13.	13.
12.	12.	11.	11.	10.	9.	9.	8.	8.	9.
13.	18.	28.	37.	47.	62.	76.	89.	102.	114.
129.	155.	198.	260.	342.	442.	558.	683.	812.	937.
1055.	1162.	1279.	1436.	1659.	1968.	2383.	2914.	3564.	4431.
5557.	6826.	8134.	9407.	10531.	11379.	11886.	12017.	11782.	11249.
10529.	9715.	8857.	8016.	7233.	6522.	5879.	5300.	4780.	4309.
3880.	3489.	3132.	2805.	2509.	2241.	2023.	1842.	1678.	1530.
1418.	1331.	1251.	1176.	1107.	1042.	982.	935.	897.	862.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12017.	10254.	4711.	1943.	233184.
CMS	340.	290.	133.	55.	6603.
INCHES		1.61	2.97	3.06	3.06
MM		40.99	75.33	77.68	77.68
AC-FT		5085.	9344.	9636.	9636.
THOUS CU M		6272.	11526.	11885.	11885.

STATION 1

OVF

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0.   2000.   4000.   6000.   8000.   10000.   12000.   0.   0.   0.   0.   0.   0.
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1.00  21
1.30  31
2.00  41
2.30  51
3.00  61
3.30  71
4.00  81
4.30  91
5.00 101
5.30 111
6.00 121
6.30 131
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 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
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 9.00 66.  I
 9.30 67.   I
10.00 68.   I
10.30 69.    I
11.00 70.     I
11.30 71.     I
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12.00 72.
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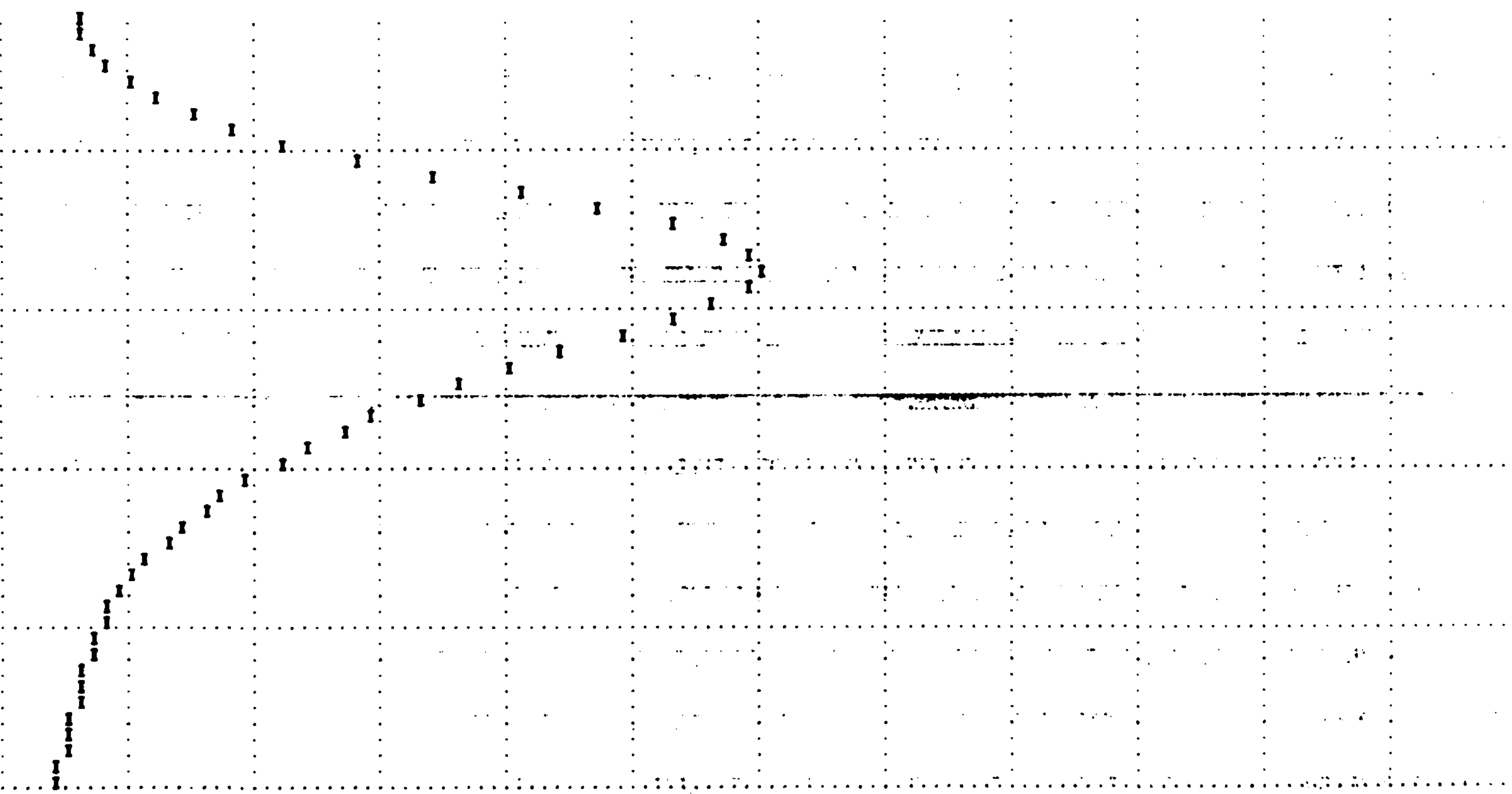

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

28.	27.	26.	25.	24.	23.	22.	22.	21.	20.
19.	19.	18.	17.	17.	16.	16.	15.	15.	14.

14.	13.	13.	13.	12.	12.	12.	12.	12.	12.
12.	12.	13.	13.	14.	15.	15.	16.	16.	16.
15.	15.	14.	13.	12.	11.	11.	10.	10.	12.
16.	23.	33.	46.	61.	78.	95.	112.	128.	142.
161.	194.	248.	325.	427.	553.	697.	854.	1015.	1172.
1319.	1453.	1598.	1795.	2074.	2461.	2979.	3642.	4455.	5539.
6946.	8533.	10168.	11759.	13163.	14224.	14858.	15021.	14728.	14061.
13161.	12144.	11072.	10020.	9042.	8152.	7349.	6626.	5975.	5386.
4850.	4362.	3915.	3507.	3136.	2801.	2528.	2302.	2098.	1913.
1772.	1664.	1564.	1470.	1384.	1303.	1228.	1168.	1122.	1077.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15021.	12818.	5889.	2429.	291480.
CMS	425.	363.	167.	69.	8254.
INCHES		2.02	3.71	3.82	3.82
MM		51.24	94.16	97.09	97.09
AC-FT		6356.	11680.	12045.	12045.
THOUS CU M		7840.	14408.	14857.	14857.

OVF

STATION 1

```
                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.    2000.    4000.    6000.    8000.    10000.    12000.    14000.    16000.    0.    0.    0.    0.
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 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
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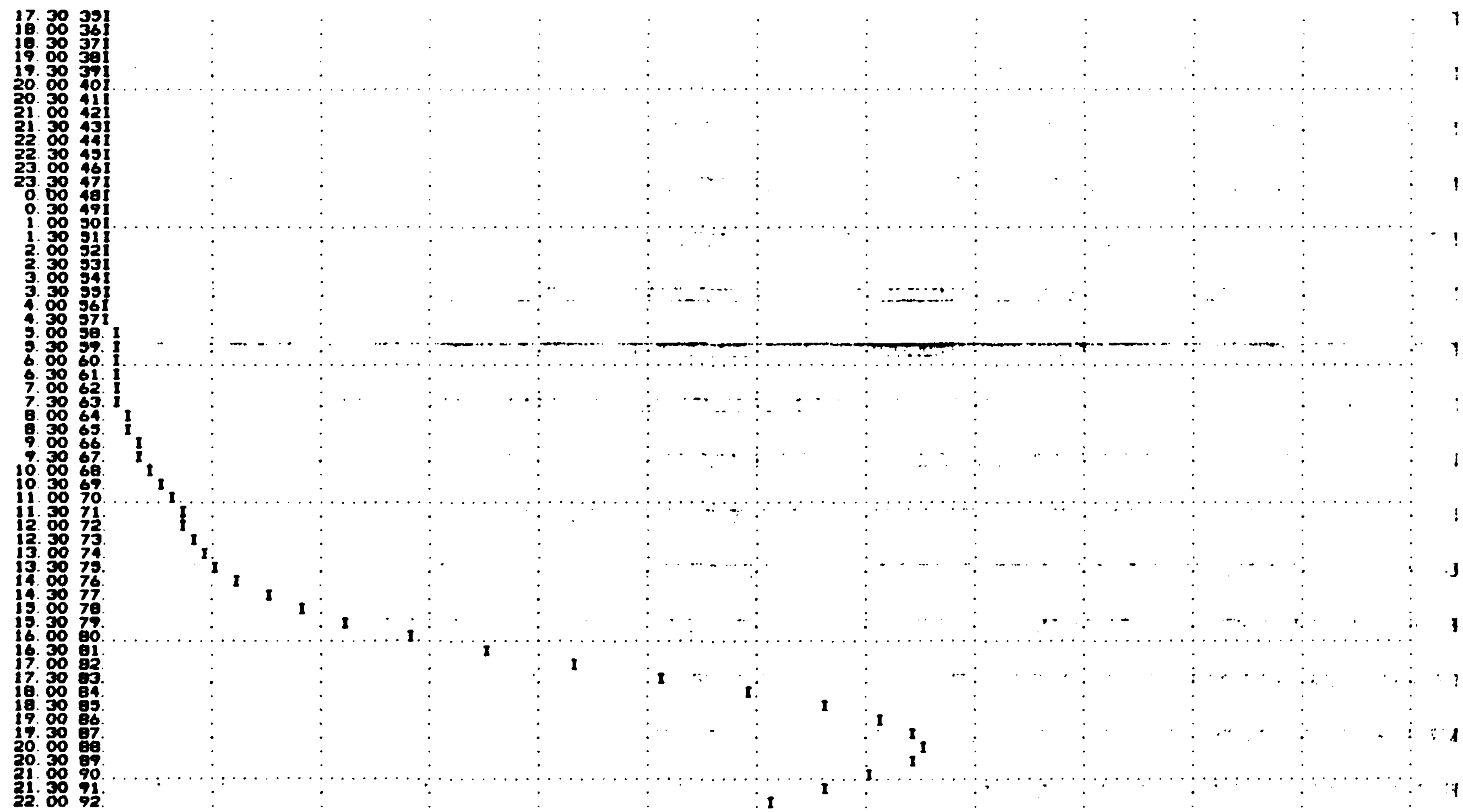
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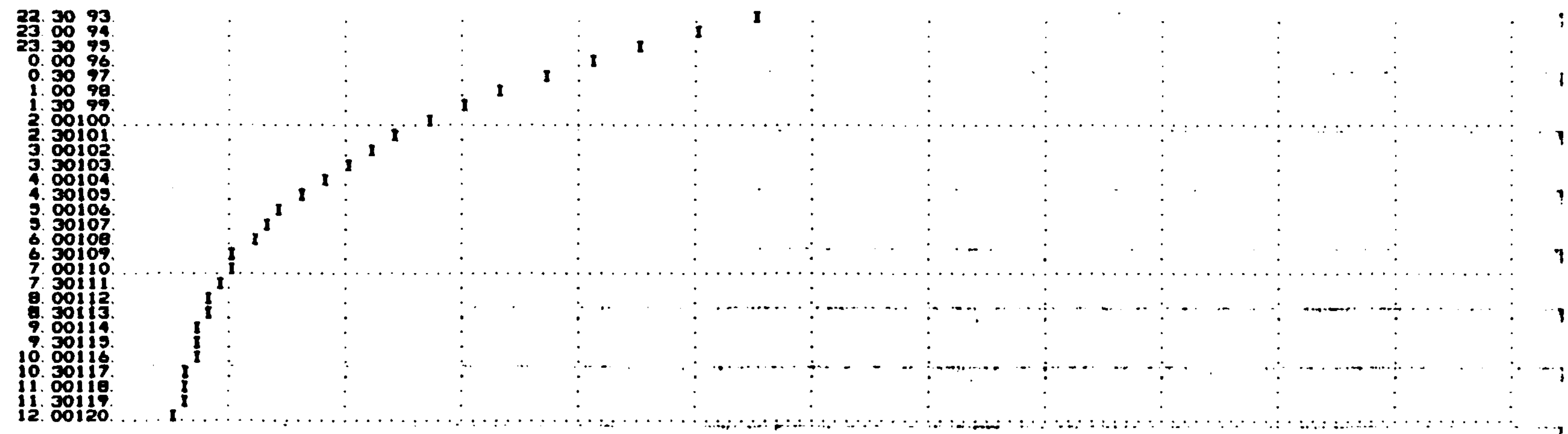


OVN

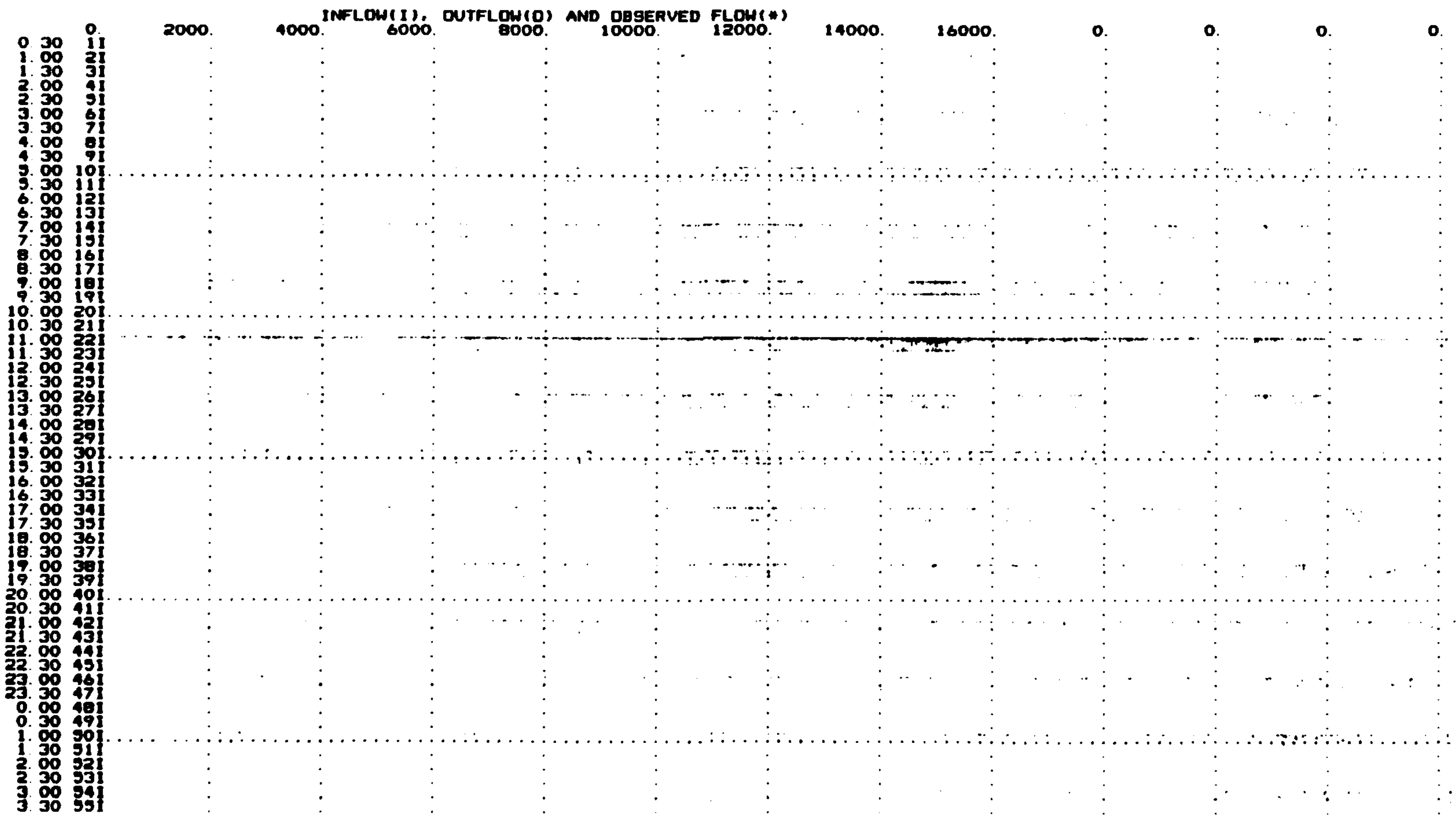
SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

30.	28.	27.	26.	25.	24.	23.	22.	22.	21.
20.	19.	19.	18.	17.	17.	16.	16.	15.	15.
14.	14.	13.	13.	13.	12.	12.	12.	12.	12.
12.	13.	13.	14.	15.	15.	16.	16.	17.	16.
16.	15.	15.	14.	13.	12.	11.	10.	10.	12.
17.	24.	34.	48.	63.	81.	99.	116.	133.	148.
168.	202.	258.	338.	444.	575.	725.	888.	1055.	1219.
1371.	1511.	1662.	1866.	2157.	2559.	3098.	3788.	4633.	5760.
7224.	8874.	10575.	12229.	13690.	14793.	15452.	15622.	15317.	14624.
13688.	12630.	11515.	10420.	9403.	8479.	7643.	6891.	6214.	5601.
5044.	4536.	4071.	3647.	3261.	2913.	2629.	2395.	2182.	1989.
1843.	1730.	1626.	1529.	1439.	1355.	1277.	1215.	1167.	1120.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15622.	13331.	6124.	2526.	303139.
CMS	442.	377.	173.	72.	8584.
INCHES		2.10	3.86	3.98	3.98
MM		53.29	97.92	100.98	100.98
AC-FT		6610.	12148.	12526.	12526.
THOUS CU M		8154.	14984.	15451.	15451.

OVF

STATION 1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1.30 31
2.00 41
2.30 51
3.00 61
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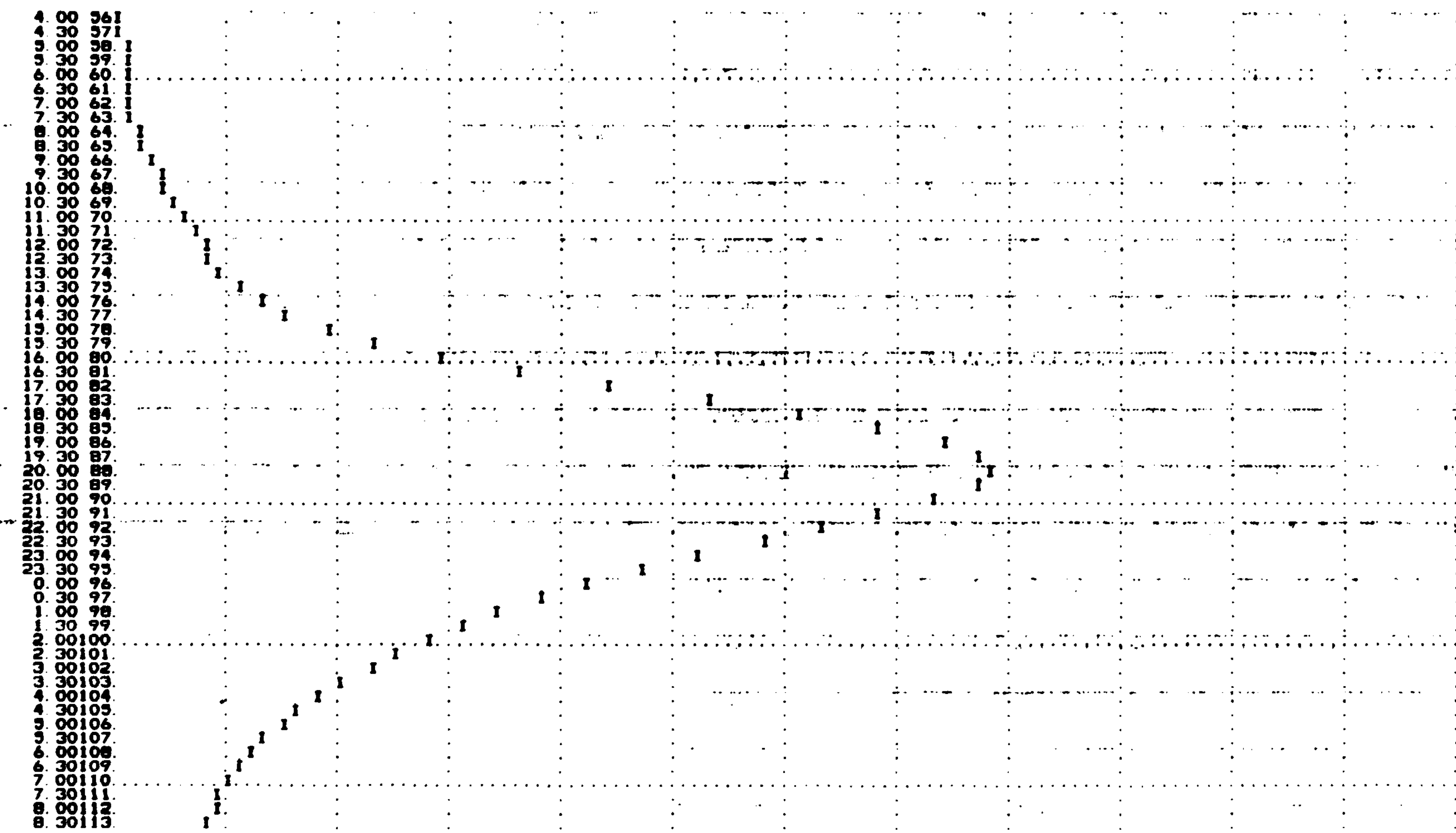
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4.30 105.
5.00 106.
5.30 107.
6.00 108.
6.30 109.
7.00 110.
7.30 111.
8.00 112.
8.30 113.

```
  9.00114.      I
  9.30115.     I
 10.00116.     I
 10.30117.    I
 11.00118.    I
 11.30119.    I
 12.00120.    I
```

OVN

```
                                SUM OF 2 HYDROGRAPHS AT       I  PLAN 1  RTIO 4
       31.        29.        28.        27.        26.        25.        24.        23.        22.        22.
       21.        20.        19.        19.        18.        17.        17.        16.        16.        15.
       15.        14.        14.        14.        13.        13.        13.        13.        12.        13.
       13.        13.        14.        14.        15.        16.        17.        17.        17.        17.
       17.        16.        15.        14.        13.        12.        11.        11.        11.        13.
       17.        25.        36.        50.        66.        84.       102.       121.       138.       154.
      174.       210.       268.       351.       461.       597.       753.       922.      1076.      1265.
     1424.      1569.      1726.      1938.      2240.      2657.      3217.      3934.      4811.      5982.
     7502.      9215.     10981.     12699.     14217.     15362.     16047.     16223.     15906.     15186.
    14214.     13116.     11957.     10821.      9765.      8805.      7937.      7156.      6453.      5817.
     5238.      4710.      4228.      3787.      3387.      3025.      2731.      2487.      2286.      2066.
     1914.      1797.      1689.      1588.      1494.      1407.      1326.      1262.      1212.      1163.
```

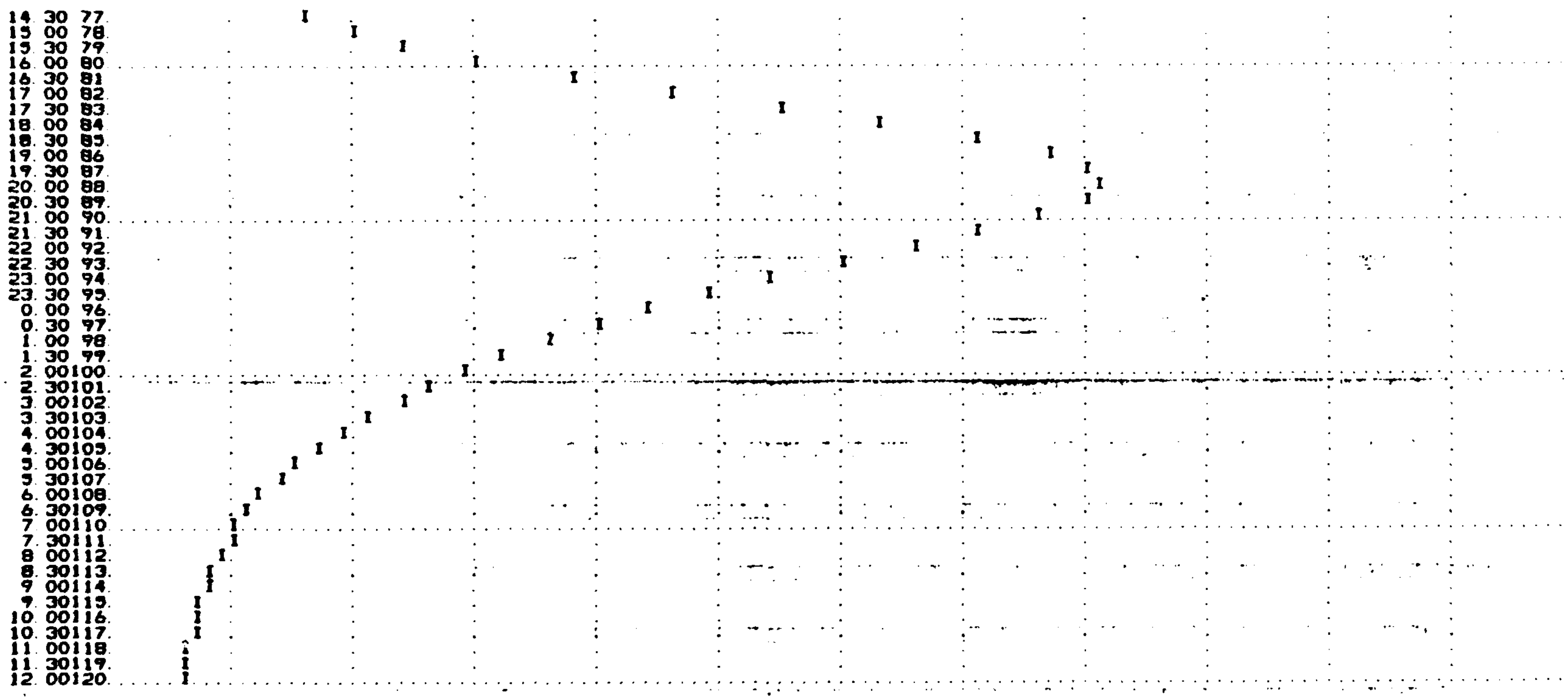
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16223.	13843.	6360.	2623.	314799.
CMS	459.	392.	180.	74.	8914.
INCHES		2.18	4.00	4.13	4.13
MM		55.34	101.69	104.86	104.86
AC-FT		6865.	12615.	13008.	13008.
THOUS CU M		8467.	15560.	16045.	16045.

OVF

```
                                           STATION     1

                              INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
              0.      2000.      4000.      6000.      8000.     10000.     12000.     14000.     16000.     18000.        0.        0.        0.
  0.30  1I
  1.00  2I
  1.30  3I
  2.00  4I
  2.30  5I
  3.00  6I
  3.30  7I
  4.00  8I
  4.30  9I
  5.00 10I
  5.30 11I
  6.00 12I
  6.30 13I
  7.00 14I
  7.30 15I
  8.00 16I
  8.30 17I
  9.00 18I
```

9.30	19
10.00	20
10.30	21
11.00	22
11.30	23
12.00	24
12.30	25
13.00	26
13.30	27
14.00	28
14.30	29
15.00	30
15.30	31
16.00	32
16.30	33
17.00	34
17.30	35
18.00	36
18.30	37
19.00	38
19.30	39
20.00	40
20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50
1.30	51
2.00	52
2.30	53
3.00	54
3.30	55
4.00	56
4.30	57.
5.00	58.
5.30	59.
6.00	60.
6.30	61.
7.00	62.
7.30	63.
8.00	64.
8.30	65.
9.00	66.
9.30	67.
10.00	68.
10.30	69.
11.00	70.
11.30	71.
12.00	72.
12.30	73.
13.00	74.
13.30	75.
14.00	76.



OVN

SUM OF 2 HYDROGRAPHS AT 1 ,PLAN 1 RTIO 5

32.	31.	29.	28.	27.	26.	25.	24.	23.	22.
22.	21.	20.	19.	19.	18.	17.	17.	16.	16.
15.	15	15.	14.	14.	13.	13.	13.	13.	13.
13.	14.	14.	15.	16.	17.	17.	18.	18.	18.
17.	17.	16.	15.	14.	13.	12.	11.	11	13.
18.	26.	37.	51.	68.	87.	106.	125.	143.	159.
180.	218.	277.	364.	478.	619.	781.	956.	1136.	1312.

1477.	1627.	1790.	2010.	2323.	2756.	3336.	4080.	4990.	6204.
7780.	9557.	11388.	13170.	14743.	15931.	16641.	16824.	16495.	15749.
14741.	13602.	12400.	11222.	10127.	9131.	8231.	7421.	6692.	6032.
5432.	4885.	4384.	3927.	3512.	3137.	2832.	2579.	2350.	2142.
1985.	1864.	1751.	1647.	1550.	1459.	1375.	1308.	1256.	1206.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16824.	14356.	6596.	2720.	326458.
CMS	476.	407.	187.	77.	9244.
INCHES		2.26	4.15	4.28	4.28
MM		57.39	105.46	108.75	108.75
AC-FT		7119.	13082.	13490.	13490.
THOUS CU M		8781.	16136.	16640.	16640.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0.     2000.     4000.     6000.     8000.    10000.    12000.    14000.    16000.    18000.        0.        0.        0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
16.30  33I
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17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
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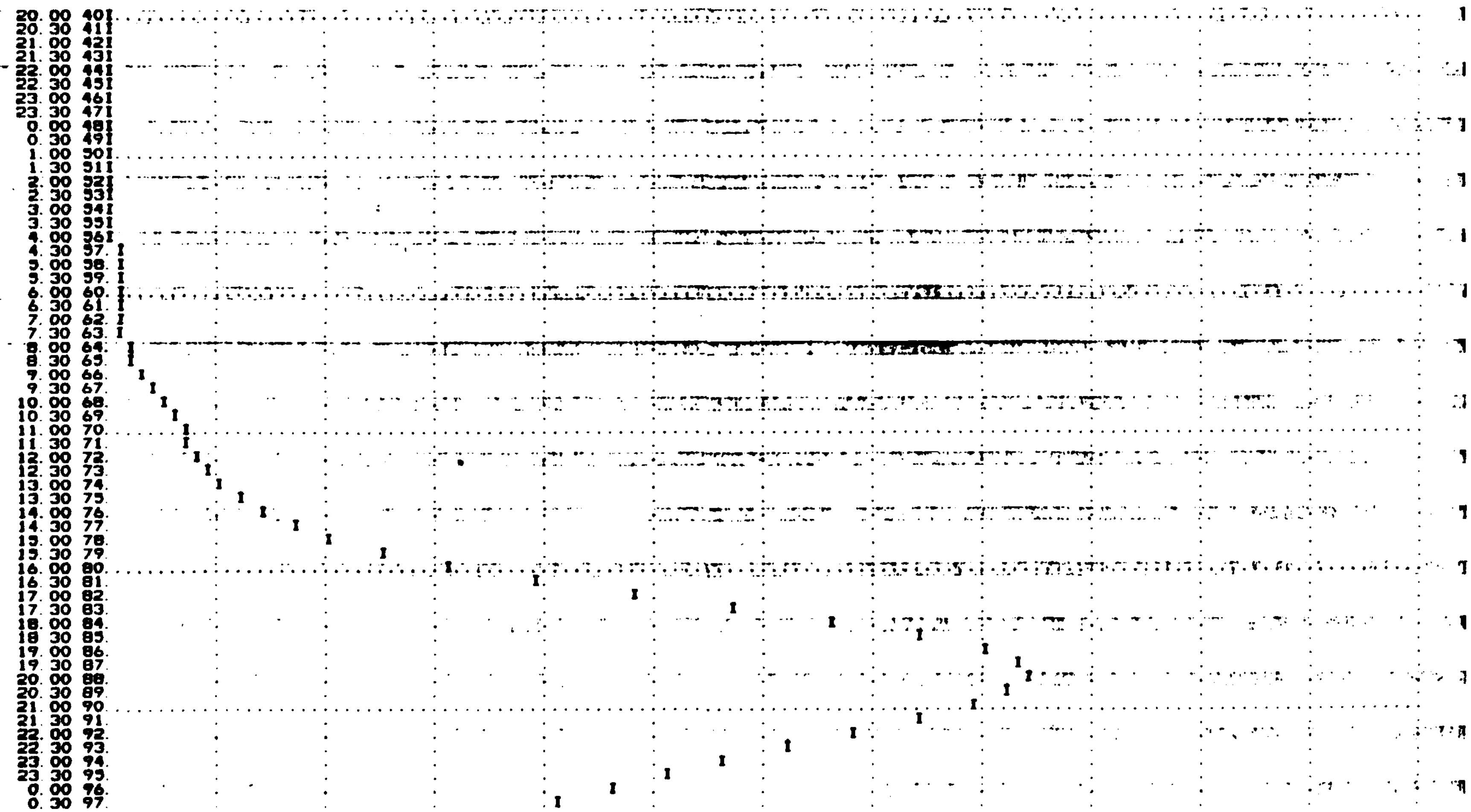
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1.30 51
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2.30 53
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4.00 56
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5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.

```
 1.00 98.                                 I
 1.30 99                               I
 2.00100.                            I
 2.30101                          I
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 4.00104.                  I
 4.30105.                I
 5.00106.              I
 5.30107.            I
 6.00108.           I
 6.30109.          I
 7.00110.         I
 7.30111         I
 8.00112.       I
 8.30113       I
 9.00114.      I
 9.30115      I
10.00116.     I
10.30117     I
11.00118.    I
11.30119    I
12.00120.   I
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

33.	32.	30.	29.	28.	27.	26.	25.	24.	23.
22.	22.	21.	20.	19.	19.	18.	17.	17.	16.
16.	15.	15.	15.	14.	14.	14.	13.	13.	13.
14.	14.	15.	15.	16.	17.	18.	18.	18.	18.
18.	17.	16.	15.	14.	13.	12.	11.	11.	14.
18.	27.	38.	53.	71.	90.	110.	130.	148.	165.
187.	225.	287.	377.	495.	641.	809.	990.	1177.	1359.
1530.	1686.	1854.	2082.	2405.	2854.	3455.	4225.	5168.	6425.
8058.	9898.	11795.	13640.	15270.	16500.	17235.	17425.	17085.	16311.
15267.	14087.	12843.	11623.	10488.	9457.	8524.	7686.	6931.	6248.
5626.	5059.	4541.	4068.	3638.	3249.	2933.	2671.	2433.	2219.
2056.	1930.	1814.	1706.	1605.	1511.	1424.	1355.	1301.	1250.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	17425.	14869.	6831.	2818.	338117.
CMS	493.	421.	193.	80.	9574.
INCHES		2.34	4.30	4.43	4.43
MM		59.44	109.22	112.63	112.63
AC-FT		7373.	13549.	13972.	13972.
THOUS CU M		9094.	16713.	17234.	17234.

OVF

STATION 1

```
                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.   2000.   4000.   6000.   8000.  10000.  12000.  14000.  16000.  18000.   0.   0.   0.
 0.30  11
 1.00  21
```

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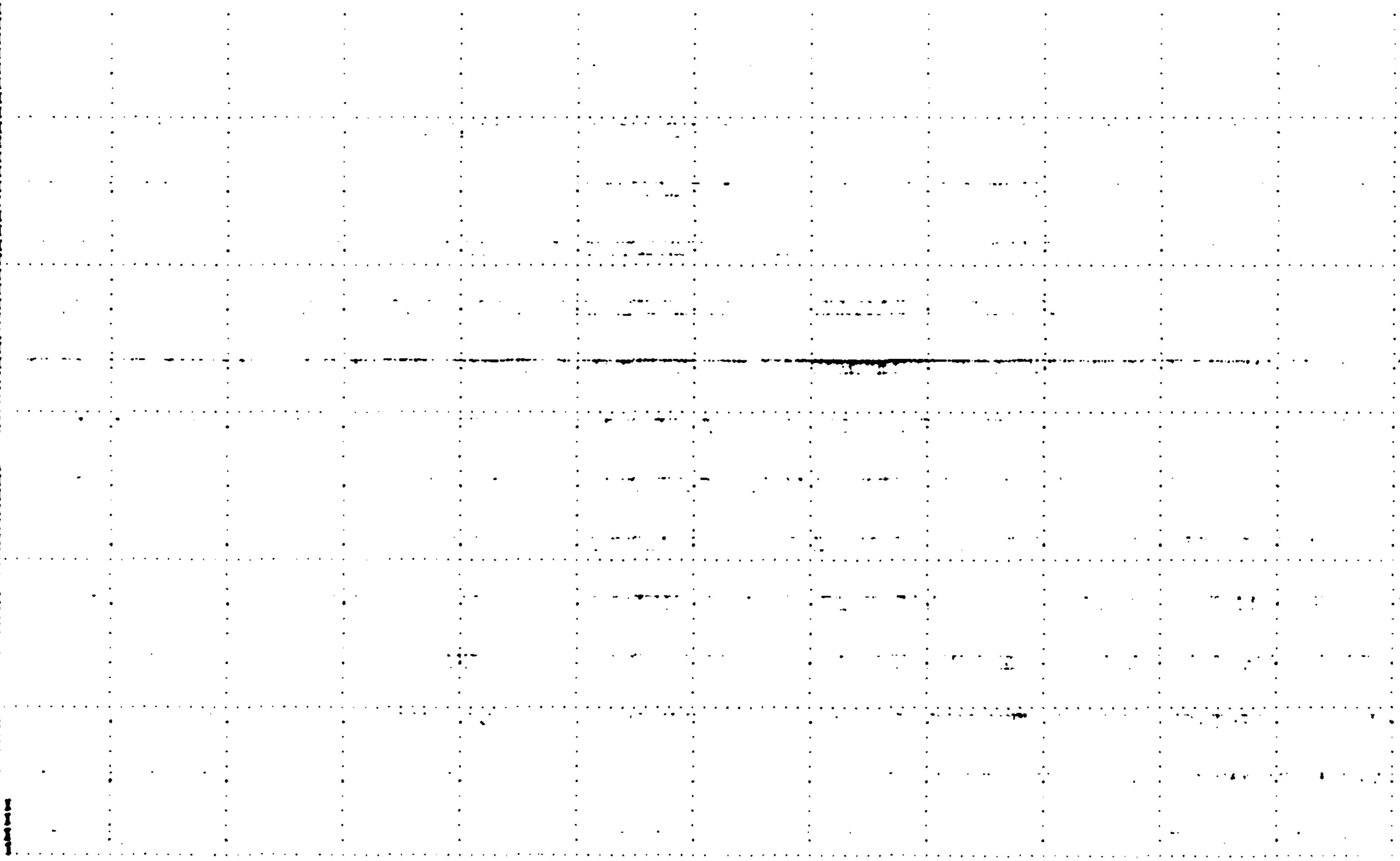
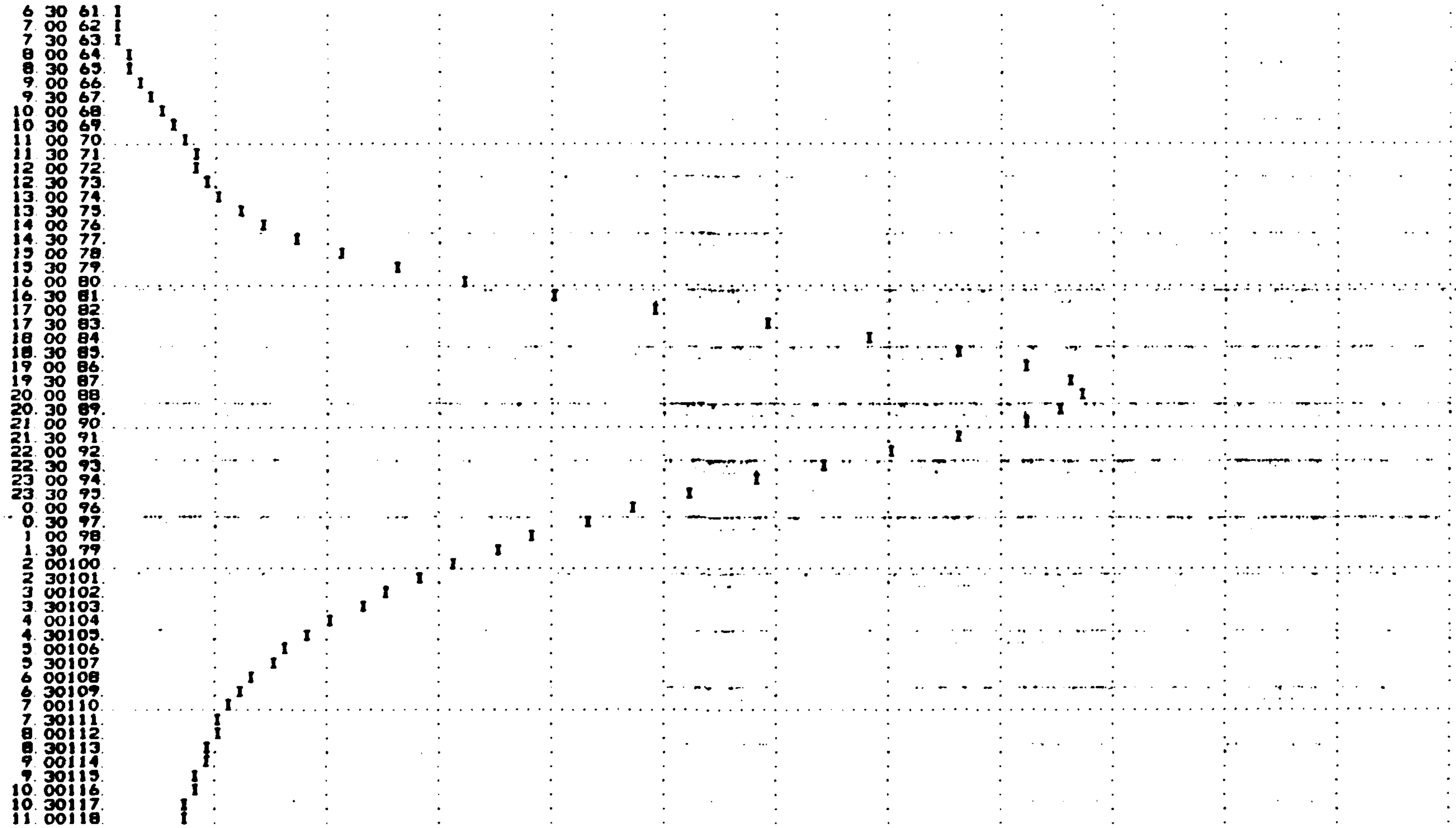
2.30	51
3.00	61
3.30	71
4.00	81
4.30	91
5.00	101
5.30	111
6.00	121
6.30	131
7.00	141
7.30	151
8.00	161
8.30	171
9.00	181
9.30	191
10.00	201
10.30	211
11.00	221
11.30	231
12.00	241
12.30	251
13.00	261
13.30	271
14.00	281
14.30	291
15.00	301
15.30	311
16.00	321
16.30	331
17.00	341
17.30	351
18.00	361
18.30	371
19.00	381
19.30	391
20.00	401
20.30	411
21.00	421
21.30	431
22.00	441
22.30	451
23.00	461
23.30	471
0.00	481
0.30	491
1.00	501
1.30	511
2.00	521
2.30	531
3.00	541
3.30	551
4.00	561
4.30	57. I
5.00	58. I
5.30	59. I
6.00	60. I

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0 30 97.
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1 30 99.
2 00100.
2 30101.
3 00102.
3 30103.
4 00104.
4 30105.
5 00106.
5 30107.
6 00108.
6 30109.
7 00110.
7 30111.
8 00112.
8 30113.
9 00114.
9 30115.
10 00116.
10 30117.
11 00118.

```
11.30119.      I
12.00120.      I
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

34.	33.	31.	30.	29.	28.	27.	26.	25.	24.
23.	22.	21.	21.	20.	19.	19.	18.	17.	17.
16.	16.	16.	15.	15.	14.	14.	14.	14.	14.
14.	15.	15.	16.	17.	18.	18.	19.	19.	19.
18.	18.	17.	16.	15.	14.	13.	12.	12.	14.
19.	28.	40.	55.	73.	93.	114.	134.	153.	171.
193.	233.	297.	390.	512.	663.	837.	1025.	1218.	1406.
1582.	1744.	1918.	2194.	2488.	2953.	3574.	4371.	5346.	6647.
8336.	10239.	12201.	14110.	15796.	17069.	17830.	18025.	17674.	16874.
15794.	14573.	13286.	12023.	10850.	9783.	8818.	7951.	7170.	6463.
5820.	5234.	4697.	4208.	3763.	3361.	3034.	2763.	2517.	2295.
2126.	1997.	1876.	1764.	1660.	1564.	1473.	1402.	1346.	1293.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	18025.	15382.	7067.	2915.	349776.
CMS	510.	436.	200.	83.	[illegible]
INCHES		2.42	4.45	4.59	4.59
MM		61.48	112.99	116.51	116.51
AC-FT		7627.	14016.	14454.	14454.
THOUS CU M		9408.	17289.	17828.	17828.

OVF

STATION 1

```
                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.   2000.   4000.   6000.   8000.  10000.  12000.  14000.  16000.  18000.  20000.   0.   0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I.......................................................................................
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I.......................................................................................
10.30  21I
11.00  22I
11.30  23I
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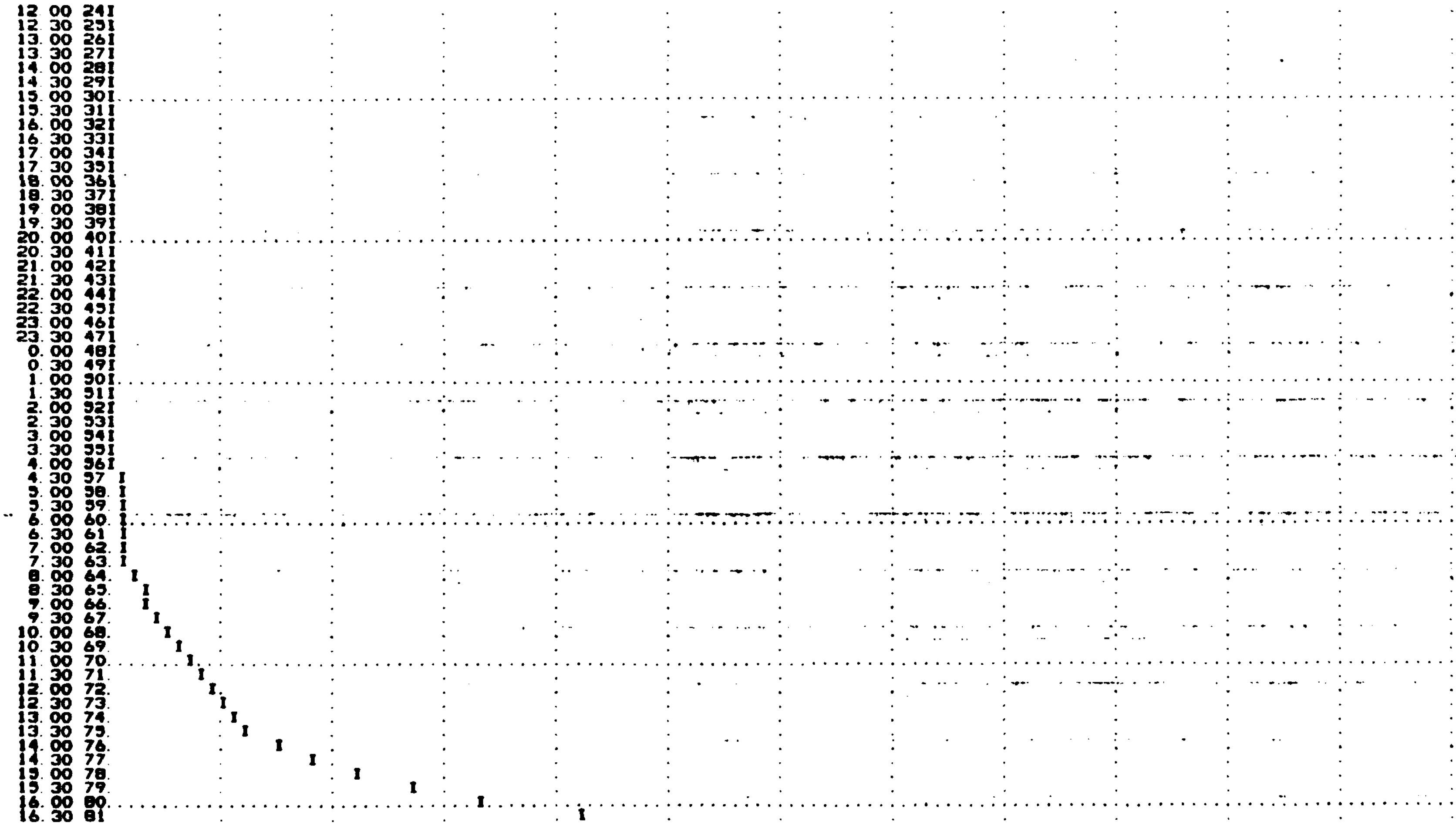
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19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
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0.30 49
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3.30 55
4.00 56
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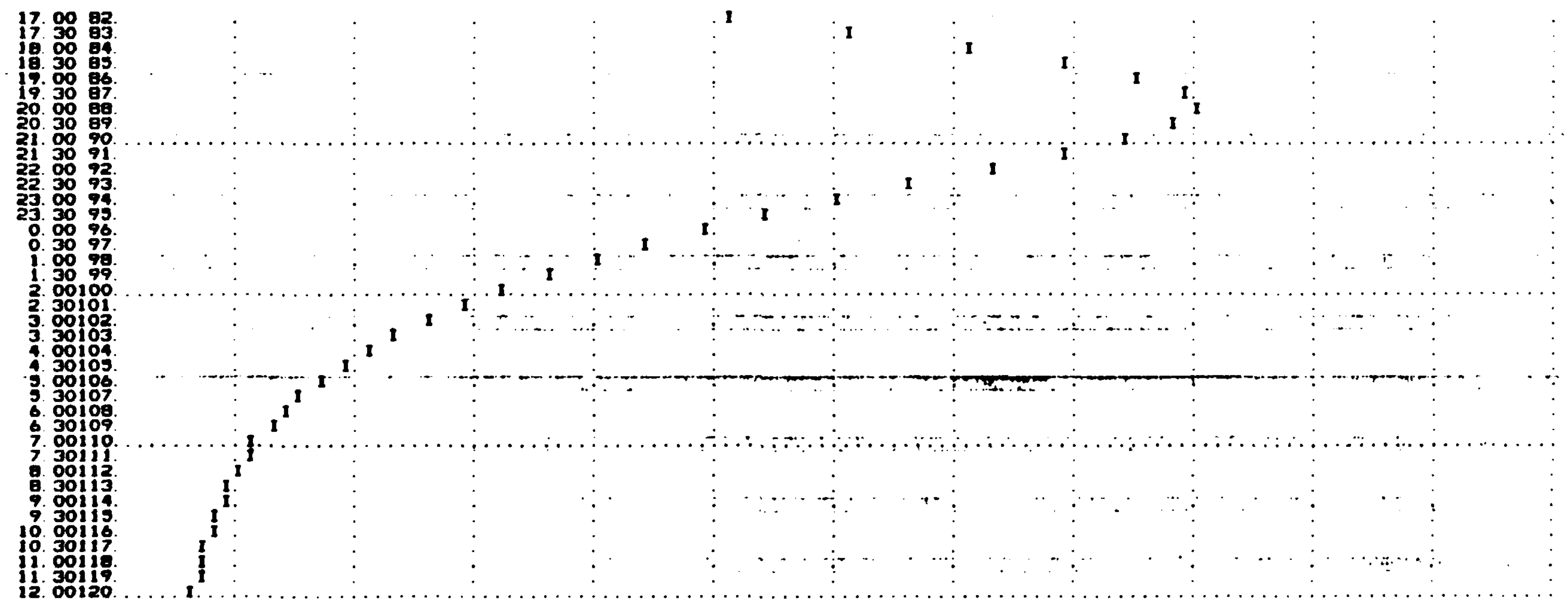
16.30 81



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

37.	35.	32.	30.	48.	47.	45.	43.	42.	40.
39.	37.	36.	34.	33.	32.	31.	30.	29.	28.
27.	27.	26.	25.	24.	24.	23.	23.	23.	23.
24.	24.	25.	27.	28.	30.	31.	32.	32.	32.
31.	30.	28.	26.	25.	23.	21.	20.	20.	23.
32.	46.	66.	92.	122.	155.	190.	224.	255.	284.
322.	388.	495.	650.	854.	1105.	1394.	1708.	2029.	2343.
2637.	2906.	3197.	3589.	4147.	4921.	5957.	7285.	8910.	11078.
13893.	17065.	20336.	23517.	26327.	28448.	29716.	30042.	29456.	28123.
26323.	24288.	22143.	20039.	18084.	16305.	14697.	13251.	11949.	10772.
9701.	8723.	7829.	7013.	6272.	5602.	5057.	4605.	4196.	3825.
3544.	3328.	3127.	2941.	2767.	2606.	2456.	2336.	2244.	2154.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	30042.	25636.	11778.	4858.	582960.
CMS	851.	726.	334.	138.	16508.
INCHES		4.03	7.41	7.65	7.65
MM		102.47	188.31	194.19	194.19
AC-FT		12712.	23361.	24089.	24089.
THOUS CU M		15680.	28815.	29714.	29714.

DVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    4000    8000.   12000.   16000.   20000.   24000.   28000.   32000.      0.      0.      0.      0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
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 9.00  18I
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10.00  20I
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12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
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17.00  34I
17.30  35I
18.00  36I
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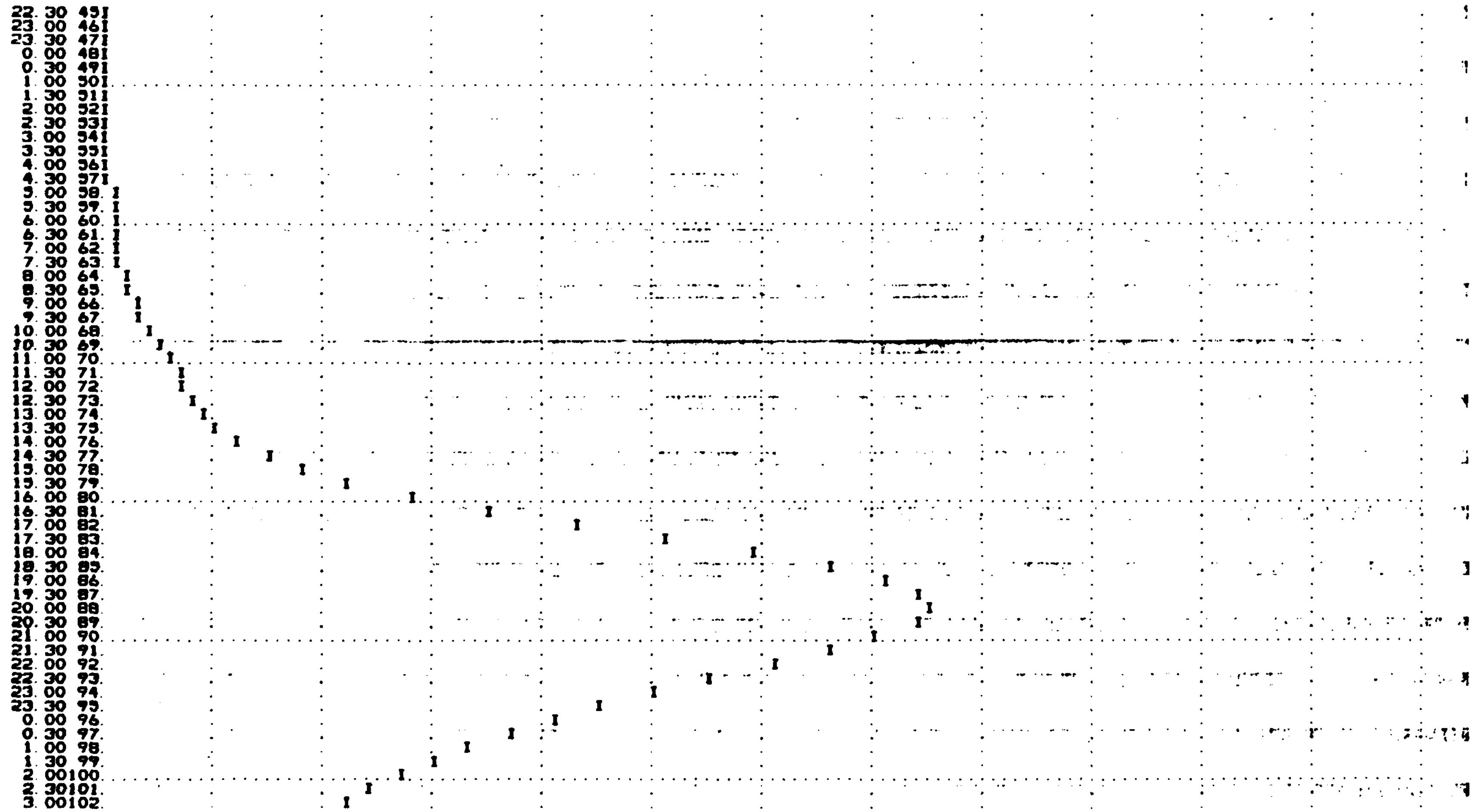
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23.30 95
0.00 96
0.30 97
1.00 98
1.30 99
2.00 100
2.30 101
3.00 102

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 7.00110.         I          .
 7.30111.        I.          .
 8.00112.       I .          .
 8.30113.       I .          .
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 9.30115.      I  .          .
10.00116.      I  .          .
10.30117.     I   .          .
11.00118.     I   .          .
11.30119.     I   .          .
12.00120.    I.
```

DVN

SUM OF 2 HYDROGRAPHS AT   1 PLAN 1 RTIO 9

114.	109.	105.	101.	97.	93.	90.	86.	83.	80.
77.	74.	72.	69.	67.	64.	62.	60.	58.	57.
55.	53.	52.	50.	49.	48.	47.	46.	46.	46.
47.	48.	51.	53.	56.	59.	62.	63.	64.	63.
62.	59.	56.	53.	49.	46.	43.	40.	40.	47.
64.	92.	132.	184.	244.	311.	379.	447.	511.	569.
644.	777.	991.	1299.	1708.	2210.	2788.	3415.	4059.	4687.
5275.	5812.	6394.	7179.	8295.	9842.	11914.	14570.	17820.	22156.
27786.	34130.	40671.	47034.	52654.	56896.	59432.	60085.	58912.	56245.
52645.	48577.	44287.	40078.	36167.	32610.	29395.	26502.	23899.	21543.
19401.	17446.	15658.	14026.	12543.	11203.	10113.	9210.	8391.	7651.
7088.	6656.	6254.	5881.	5534.	5212.	4911.	4673.	4487.	4309.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	60085.	51272.	23595.	9716.	1165919.
CMS	1701.	1452.	667.	275.	33015.
INCHES		8.07	14.83	15.29	15.29
MM		204.95	376.63	388.38	388.38
AC-FT		25424.	46721.	48178.	48178.
THOUS CU M		31360.	57630.	59427.	59427.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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1.30   3I
2.00   4I
2.30   5I
3.00   6I
3.30   7I
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4.00	8I
4.30	9I
5.00	10I
5.30	11I
6.00	12I
6.30	13I
7.00	14I
7.30	15I
8.00	16I
8.30	17I
9.00	18I
9.30	19I
10.00	20I
10.30	21I
11.00	22I
11.30	23I
12.00	24I
12.30	25I
13.00	26I
13.30	27I
14.00	28I
14.30	29I
15.00	30I
15.30	31I
16.00	32I
16.30	33I
17.00	34I
17.30	35I
18.00	36I
18.30	37I
19.00	38I
19.30	39I
20.00	40I
20.30	41I
21.00	42I
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22.30	45I
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0.30	49I
1.00	50I
1.30	51I
2.00	52I
2.30	53I
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3.30	55I
4.00	56I
4.30	57I
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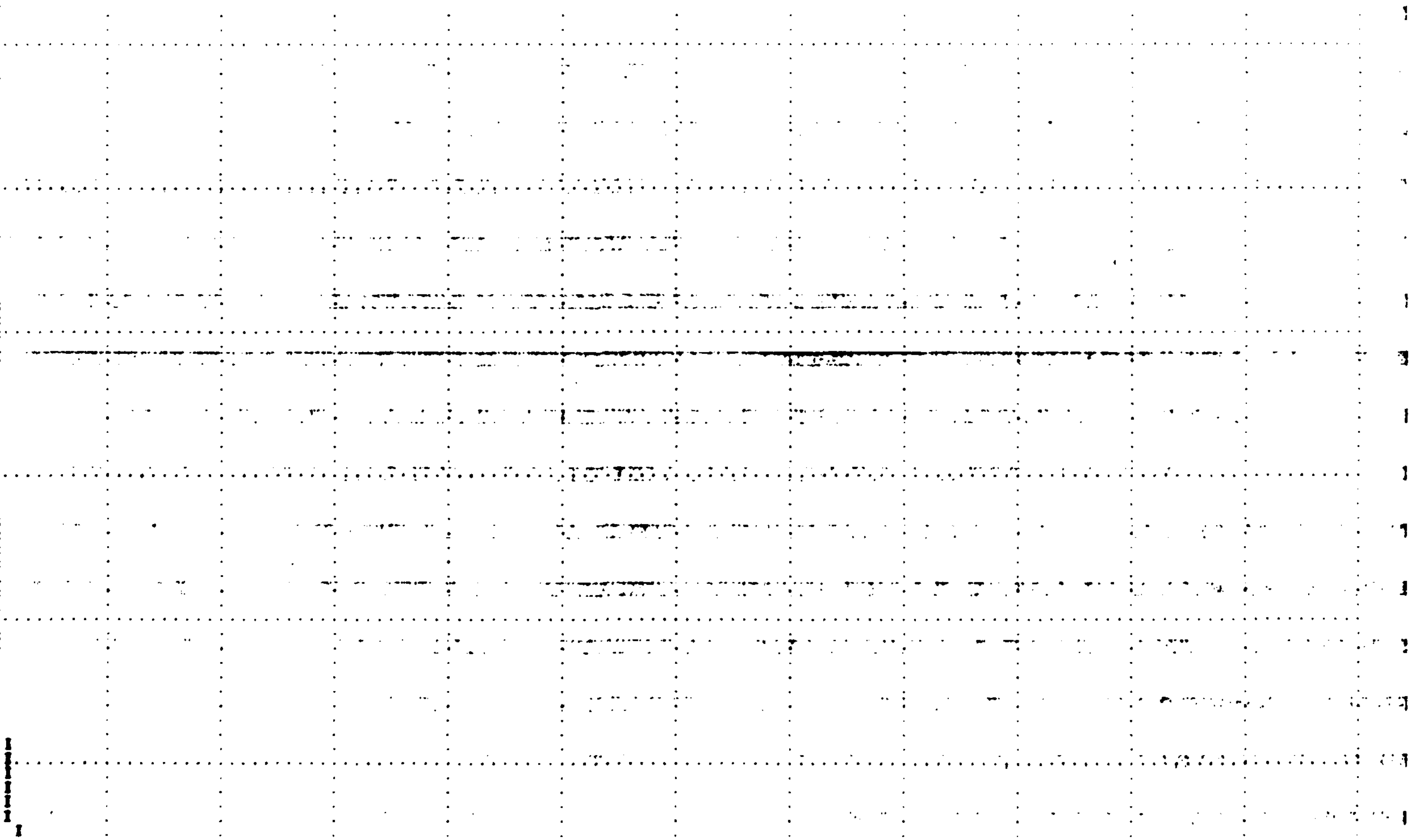

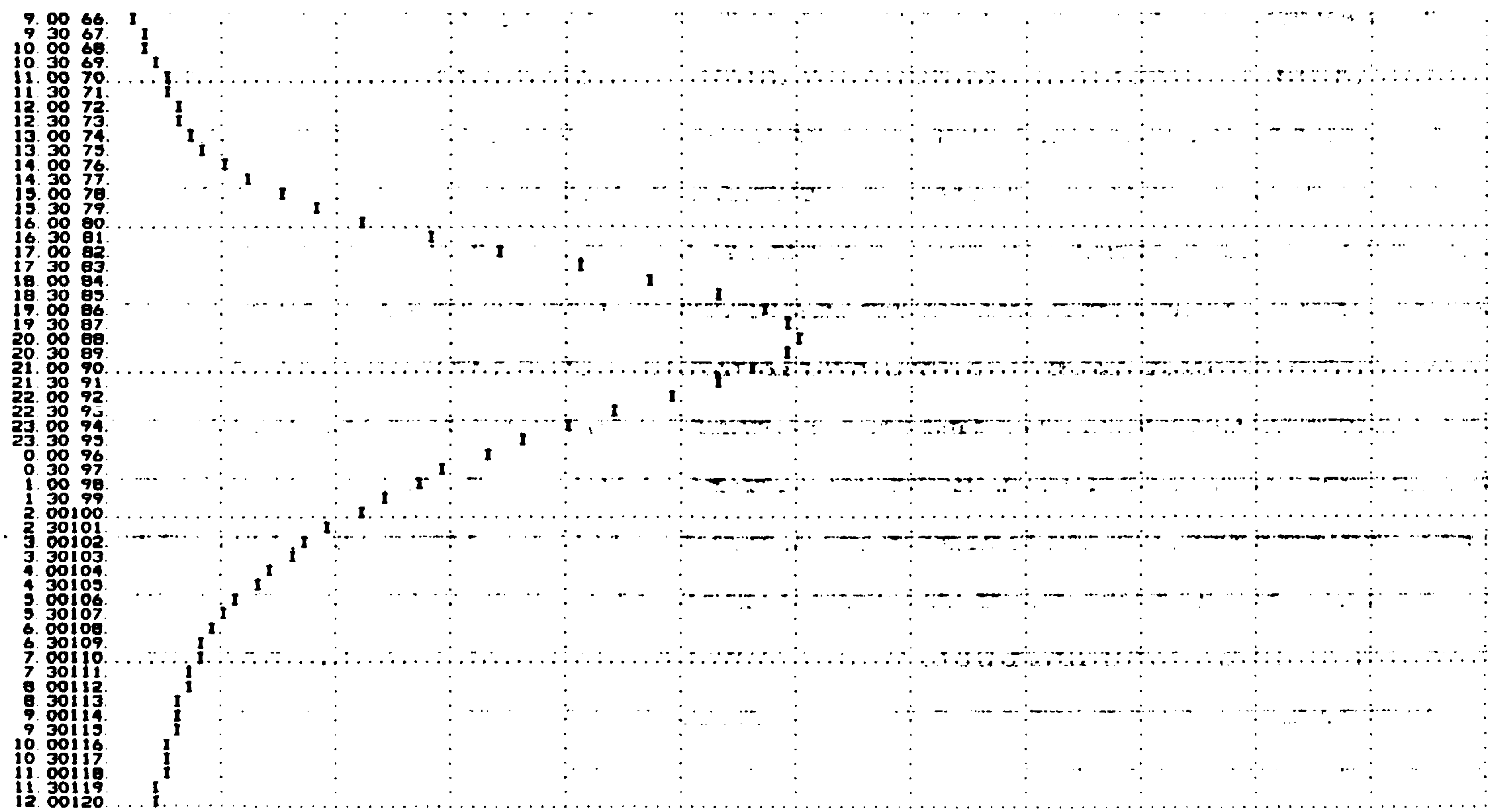
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9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

FLAHERTY GIAVARA ASSOCIATES, P C.

DVN

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**********          **********          **********          **********          **********

                              SUB-AREA RUNOFF COMPUTATION

               INFLOW HYDROGRAPH - SUBWATERSHED NO. 5
                      ISTAQ   ICOMP   IECON   ITAPE   JPLT   JPRT   INAME  ISTAGE  IAUTO
                        1       0       0       0       0      0      1      0       0

                                        HYDROGRAPH DATA
          IHYDG   IUHG   TAREA    SNAP   TRSDA   TRSPC   RATIO  ISNOW  ISAME  LOCAL
            1       1     5.56    0.00    5.56    0.00   0.000    0      1      0

                                         PRECIP DATA
                      SPFE    PMS     R6     R12     R24     R48     R72     R96
TRSPC COMPUTED BY THE PROGRAM IS 0.800
                      0.00   19.30   86.00  100.00  112.00  119.00   0.00    0.00

                                         LOSS DATA
      LROPT  STRKR   DLTKR   RTIOL  ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
        0     0.00    0.00    1.00   0.00    0.00    1.00    1.00    0.10    0.00    0.00

                                  UNIT HYDROGRAPH DATA
                           TP=  3.05     CP=0.63     NTA=  0

                                  RECESSION DATA
                    STRTQ=   -2.00    QRCSN=   -0.10    RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 6.98 AND R= 5.41 INTERVALS

          UNIT HYDROGRAPH 33 END-OF-PERIOD ORDINATES, LAG=   3.02 HOURS, CP= 0.63  VOL= 1.00
      47.     170.     337.     516.     664.     746.     749.     667.     554.     461.
     383.     318.     264.     219.     182.     151.     126.     105.      87.      72.
      60.      50.      41.      34.      29.      24.      20.      16.      14.      11.
       9.       8.       6.
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0

END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	11.	1.02	6.30	61	0.18	0.13	0.05	77.
1.01	1.00	2	0.00	0.00	0.00	10.	1.02	7.00	62	0.18	0.13	0.05	100.
1.01	1.30	3	0.00	0.00	0.00	10.	1.02	7.30	63	0.18	0.13	0.05	142.
1.01	2.00	4	0.00	0.00	0.00	9.	1.02	8.00	64	0.18	0.13	0.05	205.
1.01	2.30	5	0.00	0.00	0.00	9.	1.02	8.30	65	0.18	0.13	0.05	285.
1.01	3.00	6	0.00	0.00	0.00	9.	1.02	9.00	66	0.18	0.13	0.05	374.
1.01	3.30	7	0.00	0.00	0.00	8.	1.02	9.30	67	0.18	0.13	0.05	464.
1.01	4.00	8	0.00	0.00	0.00	8.	1.02	10.00	68	0.18	0.13	0.05	544.
1.01	4.30	9	0.00	0.00	0.00	8.	1.02	10.30	69	0.18	0.13	0.05	610.
1.01	5.00	10	0.00	0.00	0.00	8.	1.02	11.00	70	0.18	0.13	0.05	665.
1.01	5.30	11	0.00	0.00	0.00	7.	1.02	11.30	71	0.18	0.13	0.05	711.
1.01	6.00	12	0.00	0.00	0.00	7.	1.02	12.00	72	0.18	0.13	0.05	749.
1.01	6.30	13	0.01	0.00	0.01	7.	1.02	12.30	73	0.66	0.61	0.05	803.
1.01	7.00	14	0.01	0.00	0.01	6.	1.02	13.00	74	0.66	0.61	0.05	912.
1.01	7.30	15	0.01	0.00	0.01	6.	1.02	13.30	75	0.80	0.75	0.05	1103.
1.01	8.00	16	0.01	0.00	0.01	6.	1.02	14.00	76	0.80	0.75	0.05	1393.
1.01	8.30	17	0.01	0.00	0.01	6.	1.02	14.30	77	1.00	0.95	0.05	1783.
1.01	9.00	18	0.01	0.00	0.01	6.	1.02	15.00	78	1.00	0.95	0.05	2259.

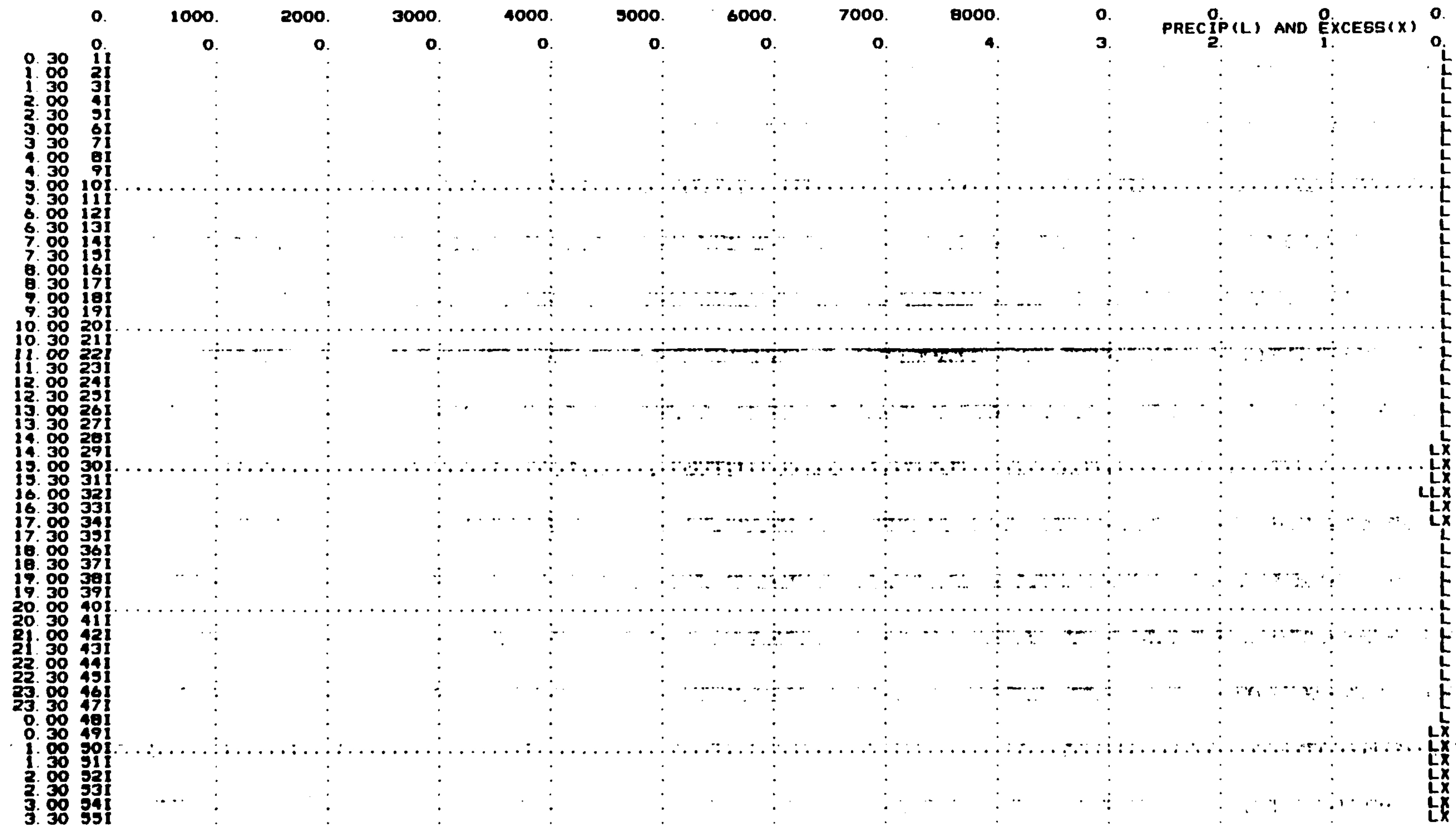
1.01	9.30	19	0.01	0.00	0.01	5.	1.02	15.30	79	1.21	1.16	0.05	2797.
1.01	10.00	20	0.01	0.00	0.01	5.	1.02	16.00	80	3.83	3.79	0.05	3489.
1.01	10.30	21	0.01	0.00	0.01	5.	1.02	16.30	81	0.93	0.88	0.05	4380.
1.01	11.00	22	0.01	0.00	0.01	5.	1.02	17.00	82	0.93	0.88	0.05	5346.
1.01	11.30	23	0.01	0.00	0.01	5.	1.02	17.30	83	0.73	0.68	0.05	6267.
1.01	12.00	24	0.01	0.00	0.01	5.	1.02	18.00	84	0.73	0.68	0.05	6989.
1.01	12.30	25	0.04	0.00	0.04	4.	1.02	18.30	85	0.09	0.04	0.05	7373.
1.01	13.00	26	0.04	0.00	0.04	4.	1.02	19.00	86	0.09	0.04	0.05	7347.
1.01	13.30	27	0.05	0.00	0.05	4.	1.02	19.30	87	0.09	0.04	0.05	6896.
1.01	14.00	28	0.05	0.00	0.05	4.	1.02	20.00	88	0.09	0.04	0.05	6201.
1.01	14.30	29	0.06	0.00	0.06	4.	1.02	20.30	89	0.09	0.04	0.05	5448.
1.01	15.00	30	0.06	0.00	0.06	4.	1.02	21.00	90	0.09	0.04	0.05	4689.
1.01	15.30	31	0.08	0.00	0.08	4.	1.02	21.30	91	0.09	0.04	0.05	3977.
1.01	16.00	32	0.24	0.00	0.24	4.	1.02	22.00	92	0.09	0.04	0.05	3356.
1.01	16.30	33	0.06	0.00	0.06	4.	1.02	22.30	93	0.09	0.04	0.05	2840.
1.01	17.00	34	0.06	0.00	0.06	5.	1.02	23.00	94	0.09	0.04	0.05	2411.
1.01	17.30	35	0.05	0.00	0.05	5.	1.02	23.30	95	0.09	0.04	0.05	2055.
1.01	18.00	36	0.05	0.00	0.05	5.	1.03	0.00	96	0.09	0.04	0.05	1758.
1.01	18.30	37	0.01	0.00	0.01	5.	1.03	0.30	97	0.00	0.00	0.00	1510.
1.01	19.00	38	0.01	0.00	0.01	5.	1.03	1.00	98	0.00	0.00	0.00	1298.
1.01	19.30	39	0.01	0.00	0.01	5.	1.03	1.30	99	0.00	0.00	0.00	1114.
1.01	20.00	40	0.01	0.00	0.01	4.	1.03	2.00	100	0.00	0.00	0.00	951.
1.01	20.30	41	0.01	0.00	0.01	4.	1.03	2.30	101	0.00	0.00	0.00	805.
1.01	21.00	42	0.01	0.00	0.01	4.	1.03	3.00	102	0.00	0.00	0.00	723.
1.01	21.30	43	0.01	0.00	0.01	3.	1.03	3.30	103	0.00	0.00	0.00	695.
1.01	22.00	44	0.01	0.00	0.01	3.	1.03	4.00	104	0.00	0.00	0.00	667.
1.01	22.30	45	0.01	0.00	0.01	3.	1.03	4.30	105	0.00	0.00	0.00	641.
1.01	23.00	46	0.01	0.00	0.01	3.	1.03	5.00	106	0.00	0.00	0.00	615.
1.01	23.30	47	0.01	0.00	0.01	2.	1.03	5.30	107	0.00	0.00	0.00	591.
1.02	0.00	48	0.01	0.00	0.01	2.	1.03	6.00	108	0.00	0.00	0.00	567.
1.02	0.30	49	0.06	0.01	0.05	3.	1.03	6.30	109	0.00	0.00	0.00	545.
1.02	1.00	50	0.06	0.01	0.05	5.	1.03	7.00	110	0.00	0.00	0.00	523.
1.02	1.30	51	0.06	0.01	0.05	9.	1.03	7.30	111	0.00	0.00	0.00	502.
1.02	2.00	52	0.06	0.01	0.05	15.	1.03	8.00	112	0.00	0.00	0.00	482.
1.02	2.30	53	0.06	0.01	0.05	22.	1.03	8.30	113	0.00	0.00	0.00	463.
1.02	3.00	54	0.06	0.01	0.05	31.	1.03	9.00	114	0.00	0.00	0.00	445.
1.02	3.30	55	0.06	0.01	0.05	40.	1.03	9.30	115	0.00	0.00	0.00	427.
1.02	4.00	56	0.06	0.01	0.05	48.	1.03	10.00	116	0.00	0.00	0.00	410.
1.02	4.30	57	0.06	0.01	0.05	55.	1.03	10.30	117	0.00	0.00	0.00	394.
1.02	5.00	58	0.06	0.01	0.05	60.	1.03	11.00	118	0.00	0.00	0.00	378.
1.02	5.30	59	0.06	0.01	0.05	65.	1.03	11.30	119	0.00	0.00	0.00	363.
1.02	6.00	60	0.06	0.01	0.05	68.	1.03	12.00	120	0.00	0.00	0.00	349.
									SUM	18.37	14.91	3.46	112942.
										(467.)(	379.)(	88.)(	3198.16)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7373.	5694.	2265.	940.	112758.
CMS	209.	161.	64.	27.	3193.
INCHES		9.53	15.16	15.72	15.72
MM		241.99	385.05	399.32	399.32
AC-FT		2824.	4493.	4659.	4659.
THOUS CU M		3483.	5542.	5747.	5747.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)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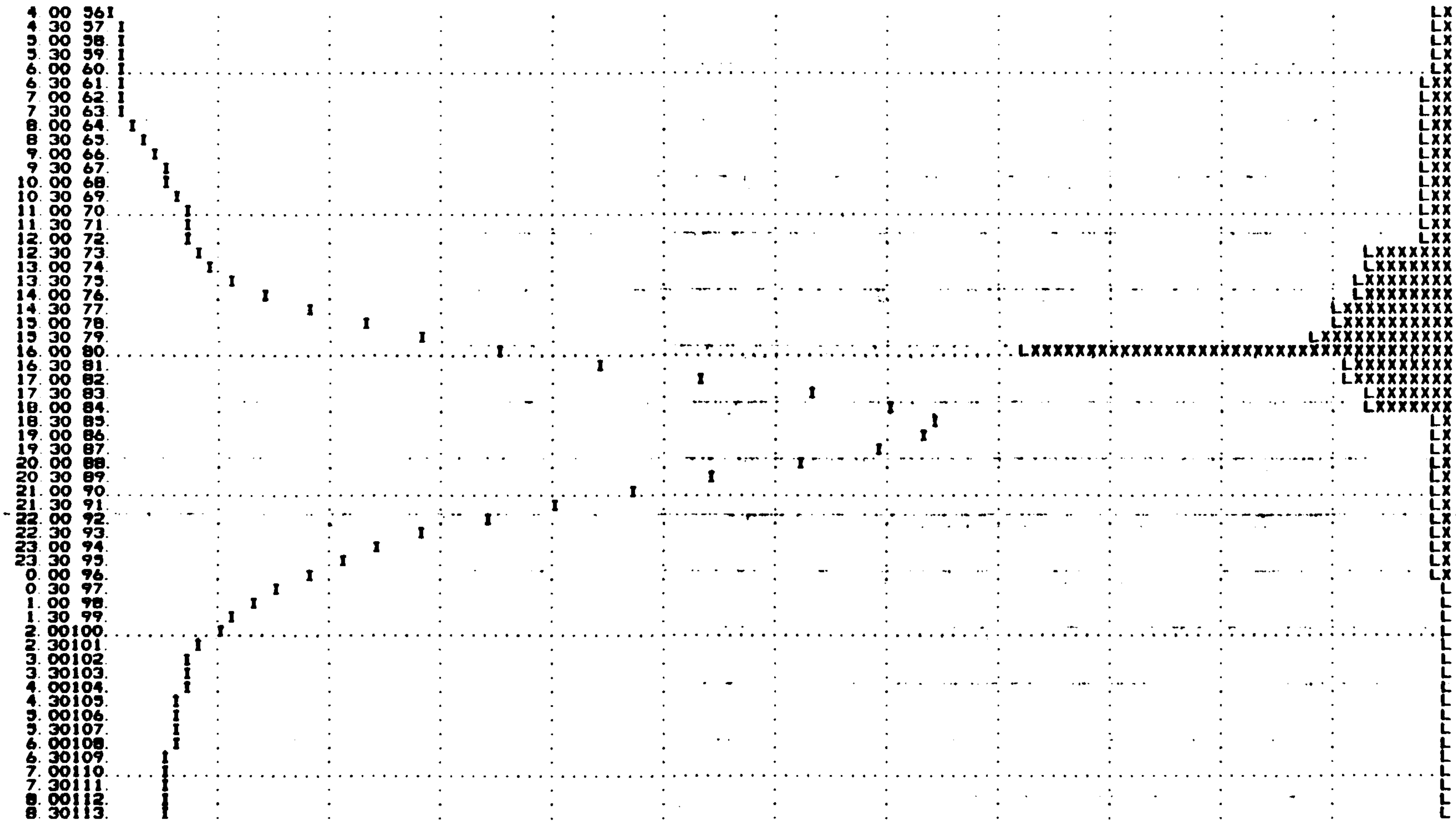
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11.00118.   I                                                                  L
11.30119.   I                                                                  L
12.00120. I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . L
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DVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	0.	0.	1.	1.
2.	3.	4.	6.	8.	10.	11.	12.	13.	14.
15.	20.	28.	41.	57.	75.	93.	109.	122.	133.
142.	150.	161.	182.	221.	279.	337.	452.	559.	698.
876.	1069.	1253.	1398.	1475.	1469.	1379.	1240.	1090.	938.
795.	671.	568.	482.	411.	352.	302.	260.	223.	190.
161.	145.	139.	133.	128.	123.	118.	113.	109.	105.
100.	96.	93.	89.	85.	82.	79.	76.	73.	70.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1475.	1139.	453.	188.	22552.
CMS	42.	32.	13.	5.	639.
INCHES		1.91	3.03	3.14	3.14
MM		48.40	77.01	79.86	79.86
AC-FT		565.	899.	932.	932.
THOUS CU M		697.	1108.	1149.	1149.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

3.	3.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	4.	6.	8.	10.	12.	14.	15.	16.	17.
19.	25.	35.	51.	71.	94.	116.	136.	153.	166.
178.	187.	201.	228.	276.	348.	446.	565.	699.	872.
1095.	1336.	1567.	1747.	1843.	1837.	1724.	1550.	1362.	1178.
994.	839.	710.	603.	514.	440.	378.	325.	279.	238.
201.	181.	174.	167.	160.	154.	148.	142.	136.	131.
126.	121.	116.	111.	107.	103.	98.	95.	91.	87.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1843.	1424.	566.	235.	28190.
CMS	52.	40.	16.	7.	798.
INCHES		2.38	3.79	3.93	3.93
MM		60.50	96.26	99.83	99.83
AC-FT		706.	1123.	1165.	1165.
THOUS CU M		871.	1386.	1437.	1437.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	4.	6.	8.	10.	13.	14.	16.	17.	18.
20.	26.	37.	53.	74.	97.	121.	141.	159.	173.
185.	195.	209.	237.	287.	362.	464.	587.	727.	907.
1139.	1390.	1629.	1817.	1917.	1910.	1793.	1612.	1416.	1219.
1034.	873.	738.	627.	534.	457.	393.	338.	290.	247.
209.	188.	181.	173.	167.	160.	154.	147.	142.	136.
131.	125.	120.	116.	111.	107.	102.	98.	94.	91.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1917.	1481.	589.	244.	29317.
CMS	54.	42.	17.	7.	830.
INCHES		2.48	3.94	4.09	4.09
MM		62.92	100.11	103.82	103.82
AC-FT		734.	1168.	1211.	1211.
THOUS CU M		906.	1441.	1494.	1494.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

3.	3.	3.	3.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	4.	6.	8.	11.	13.	15.	16.	17.	18.
21.	27.	38.	55.	77.	101.	125.	147.	165.	180.
192.	202.	217.	246.	298.	376.	481.	610.	755.	942.
1183.	1443.	1692.	1887.	1991.	1784.	1862.	1674.	1471.	1266.
1074.	906.	767.	651.	555.	475.	408.	351.	301.	257.
217.	195.	188.	180.	173.	166.	159.	153.	147.	141.
136.	130.	125.	120.	115.	111.	106.	102.	98.	94.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1991.	1338.	612.	254.	30445.
CMS	56.	44.	17.	7.	862.
INCHES		2.57	4.09	4.24	4.24
MM		65.34	103.96	107.82	107.82
AC-FT		762.	1213.	1258.	1258.
THOUS CU M		940.	1496.	1552.	1552.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

3.	3.	3.	3.	3.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	4.	6.	9.	11.	13.	15.	17.	18.	19.
22.	28.	40.	57.	80.	105.	130.	152.	171.	186.
199.	210.	225.	255.	309.	390.	499.	632.	783.	977.
1226.	1497.	1755.	1957.	2064.	2057.	1931.	1736.	1525.	1313.
1113.	940.	795.	675.	575.	492.	423.	364.	312.	266.
225.	203.	194.	187.	179.	172.	165.	159.	152.	146.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2064.	1594.	634.	263.	31572.
CMS	58.	45.	18.	7.	894.
INCHES		2.67	4.24	4.40	4.40
MM		67.76	107.81	111.81	111.81
AC-FT		791.	1258.	1305.	1305.
THOUS CU M		975.	1552.	1609.	1609.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

141.	135.	130.	125.	120.	115.	110.	106.	102.	98.
3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	4.	7.	9.	12.	14.	16.	17.	19.	20.
22.	29.	41.	59.	83.	109.	135.	158.	177.	193.
206.	217.	233.	264.	320.	404.	517.	655.	811.	1012.
1270.	1590.	1817.	2027.	2138.	2131.	2000.	1798.	1580.	1360.
1153.	973.	824.	699.	596.	510.	438.	377.	323.	276.
233.	210.	201.	193.	186.	178.	171.	164.	158.	152.
146.	140.	134.	129.	124.	119.	114.	110.	105.	101.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2138.	1651.	657.	272.	32700.
CMS	61.	47.	19.	8.	926.
INCHES		2.76	4.40	4.56	4.56
MM		70.18	111.67	115.80	115.80
AC-FT		819.	1303.	1351.	1351.
THOUS CU M		1010.	1607.	1667.	1667.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

141.	135.	130.	125.	120.	115.	110.	106.	102.	98.
3.	3.	3.	3.	3.	3.	3.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
3.	4.	7.	9.	12.	14.	16.	18.	19.	21.
23.	30.	43.	61.	85.	112.	139.	163.	183.	200.
213.	225.	241.	274.	331.	418.	533.	678.	839.	1047.
1314.	1604.	1880.	2097.	2212.	2204.	2069.	1860.	1634.	1407.
1193.	1007.	852.	723.	616.	528.	453.	390.	334.	289.
242.	217.	208.	200.	192.	185.	177.	170.	163.	157.
151.	145.	139.	133.	128.	123.	118.	113.	109.	105.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2212.	1708.	680.	282.	33827.
CMS	63.	48.	19.	8.	958.
INCHES		2.86	4.55	4.72	4.72
MM		72.60	115.52	119.79	119.79
AC-FT		847.	1348.	1398.	1398.
THOUS CU M		1045.	1663.	1724.	1724.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	1.	1.	1.	1.	1.	2.
4.	7.	11.	16.	20.	24.	27.	30.	32.	34.
39.	50.	71.	102.	142.	187.	232.	272.	305.	333.
355.	374.	402.	456.	551.	696.	892.	1129.	1398.	1744.
2190.	2673.	3133.	3494.	3687.	3673.	3448.	3100.	2724.	2345.
1988.	1678.	1420.	1206.	1027.	879.	755.	649.	557.	475.
403.	362.	347.	334.	320.	308.	295.	284.	272.	261.
251.	241.	232.	222.	214.	205.	197.	189.	182.	174.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3687.	2847.	1133.	470.	56379.
CMS	104.	81.	32.	13.	1596.
INCHES		4.76	7.58	7.86	7.86
MM		121.00	192.53	199.66	199.66
AC-FT		1412.	2246.	2330.	2330.
THOUS CU M		1741.	2771.	2874.	2874.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

11.	10.	10.	9.	9.	9.	8.	8.	8.	8.
7.	7.	7.	6.	6.	6.	6.	6.	5.	5.
5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
4.	4.	4.	5.	5.	5.	5.	5.	5.	4.
4.	4.	3.	3.	3.	3.	2.	2.	3.	5.
9.	15.	22.	31.	40.	48.	55.	60.	65.	68.
77.	100.	142.	205.	285.	374.	464.	544.	610.	665.
711.	749.	803.	912.	1103.	1393.	1783.	2259.	2797.	3489.
4380.	5346.	6267.	6989.	7373.	7347.	6896.	6201.	5448.	4689.
3977.	3356.	2840.	2411.	2055.	1758.	1510.	1298.	1114.	951.
805.	723.	695.	667.	641.	615.	591.	567.	545.	523.
502.	482.	463.	449.	427.	410.	394.	378.	363.	349.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7373.	5694.	2265.	940.	112758.
CMS	209.	161.	64.	27.	3193.
INCHES		9.53	15.16	15.72	15.72
MM		241.99	385.05	399.32	399.32
AC-FT		2824.	4493.	4659.	4659.
THOUS CU M		3483.	5542.	5747.	5747.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

25.	24.	23.	22.	21.	20.	20.	19.	18.	18.

17.	16.	16.	15.	15.	14.	14.	13.	13.	12.
12.	12.	11.	11.	11.	10.	10.	10.	10.	10.
10.	11.	11.	12.	12.	13.	13.	14.	14.	13.
13.	13.	12.	11.	10.	10.	9.	8.	8.	10.
14.	21.	31.	43.	57.	72.	87.	101.	115.	127.
144.	175.	227.	301.	398.	517.	650.	792.	934.	1070.
1197.	1312.	1439.	1618.	1879.	2247.	2740.	3366.	4123.	5129.
6433.	7895.	9388.	10805.	12005.	12849.	13265.	13257.	12872.	12187.
11324.	10387.	9425.	8478.	7644.	6874.	6181.	5560.	5003.	4499.
4041.	3634.	3271.	2939.	2637.	2364.	2141.	1955.	1787.	1635.
1518.	1428.	1343.	1265.	1192.	1124.	1061.	1010.	970.	932.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13265.	11330.	5162.	2131.	255736.
CMS	376.	321.	146.	60.	7242.
INCHES		1.63	2.97	3.07	3.07
MM		41.40	75.44	77.86	77.86
AC-FT		5618.	10239.	10568.	10568.
THOUS CU M		6930.	12629.	13035.	13035.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
           0.    2000.    4000.    6000.    8000.   10000.   12000.   14000.     0.     0.     0.     0.     0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
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16.30  33I
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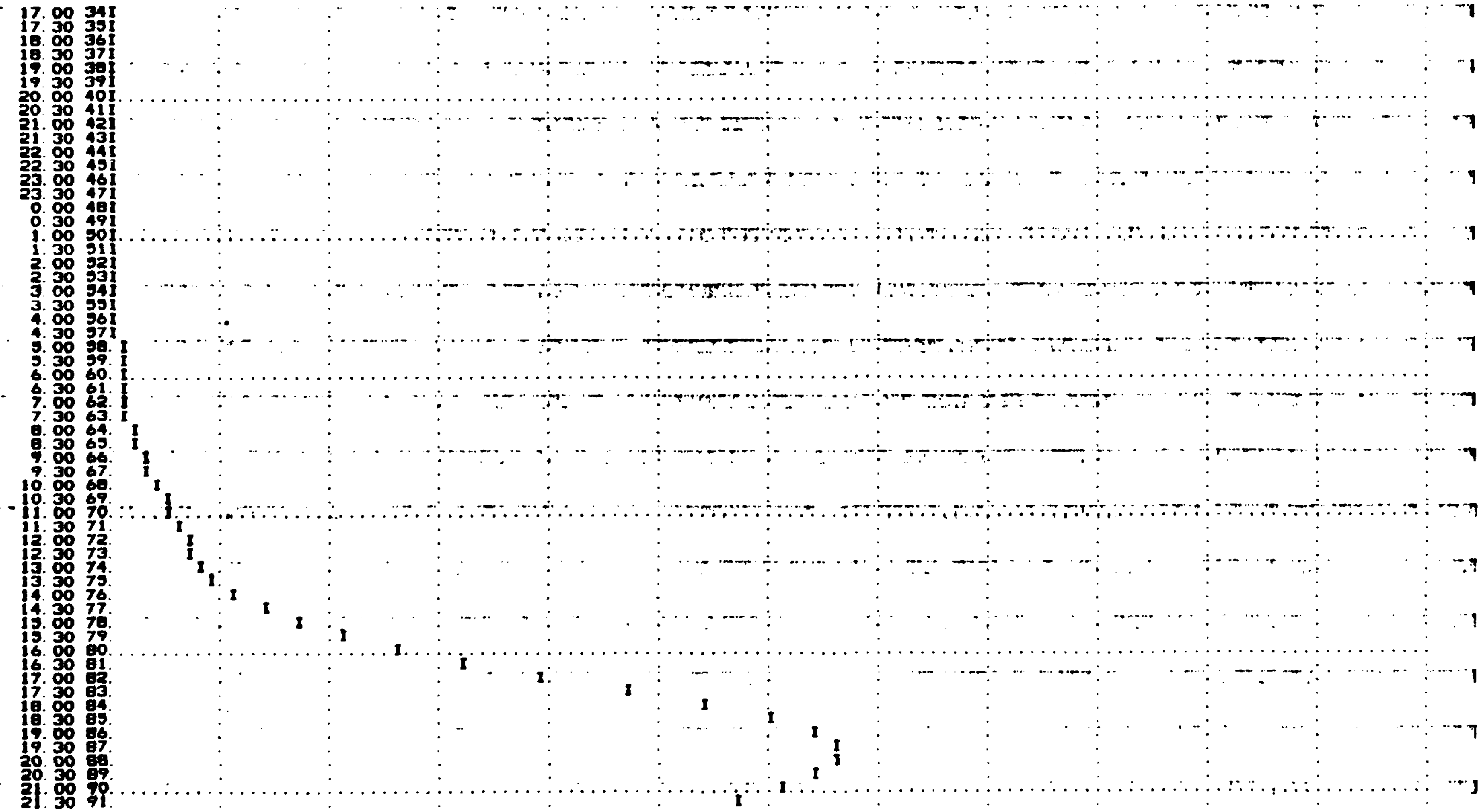
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 9.00 114.
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10.00 116.
10.30 117.
11.00 118.
11.30 119.
12.00 120.
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DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTID 2

31.	30.	29.	28.	26.	25.	25.	24.	23.	22.
21.	20.	20.	19.	18.	18.	17.	16.	16.	15.
15.	15.	14.	14.	13.	13.	13.	13.	13.	13.
13.	13.	14.	14.	15.	16.	17.	17.	17.	17.
16.	16.	15.	14.	13.	12.	11.	10.	11.	13.
18.	27.	39.	54.	71.	90.	109.	127.	144.	159.
180.	219.	283.	376.	498.	646.	813.	990.	1167.	1338.
1496.	1640.	1799.	2023.	2349.	2809.	3424.	4207.	5154.	6411.
8042.	9869.	11735.	13506.	15007.	16061.	16582.	16571.	16090.	15234.
14155.	12983.	11782.	10622.	9555.	8592.	7726.	6950.	6253.	5624.
5052.	4942.	4088.	3673.	3296.	2955.	2676.	2444.	2234.	2043.
1898.	1784.	1679.	1581.	1490.	1405.	1326.	1263.	1213.	1164.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16582.	14163.	6452.	2664.	319670.
CMS	470.	401.	183.	75.	9052.
INCHES		2.04	3.71	3.83	3.83
MM		51.74	94.30	97.33	97.33
AC-FT		7023.	12798.	13209.	13209.
THOUS CU M		8662.	15787.	16294.	16294.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
            0.    2000.    4000.    6000.    8000.    10000.    12000.    14000.    16000.    18000.    0.    0.    0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
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 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
16.30  33I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
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23.00  46I
23.30  47I
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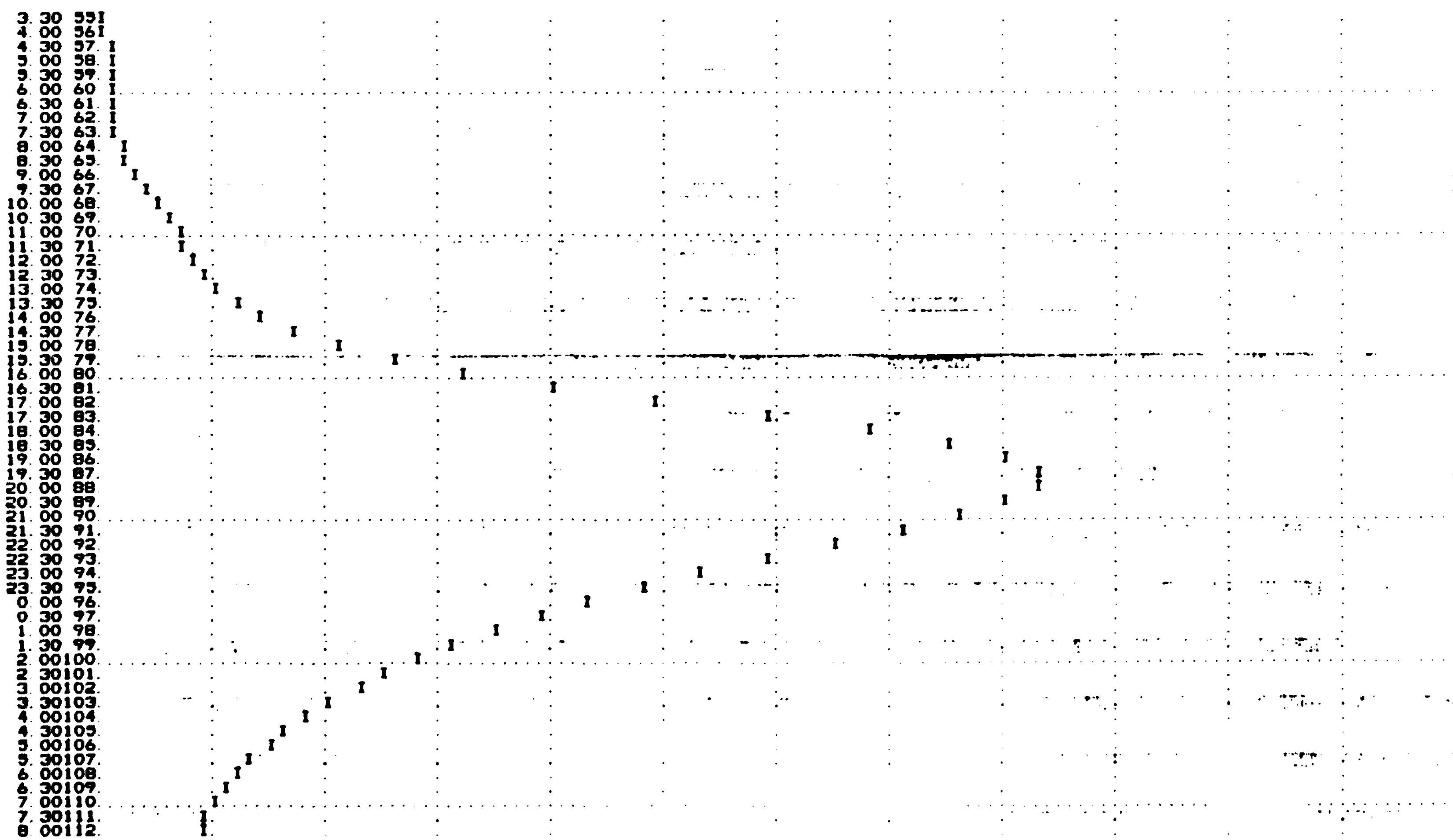
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8.00112.

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11.00118       I
11.30119       I
12.00120.......I.......................................................................................

*OVN*

                                      SUM OF 2 HYDROGRAPHS AT       1  PLAN 1  RTIO 3
                32.        31.        30.        29.        28.        26.        26.        25.        24.        23.
                22.        21.        20.        20.        19.        18.        18.        17.        17.        16.
                16.        15.        15.        14.        14.        14.        13.        13.        13.        13.
                13.        14.        14.        15.        16.        17.        17.        18.        18.        18.
                17.        16.        15.        14.        13.        13.        12.        11.        11.        13.
                19.        28.        40.        56.        74.        93.       113.       132.       150.       166.
               188.       228.       295.       391.       518.       672.       846.      1029.      1214.      1391.
              1596.      1706.      1871.      2103.      2443.      2921.      3561.      4375.      5360.      6668.
              8363.     10264.     12204.     14046.     15607.     16703.     17245.     17234.     16734.     15843.
             14722.     13503.     12253.     11047.      9938.      8936.      8035.      7228.      6503.      5849.
              5254.      4724.      4252.      3820.      3428.      3073.      2783.      2542.      2323.      2125.
              1973.      1856.      1746.      1645.      1550.      1462.      1379.      1313.      1261.      1211.

                                     PEAK    6-HOUR    24-HOUR    72-HOUR   TOTAL VOLUME
                         CFS        17245.    14729.     6711.      2770.        332457.
                         CMS          488.      417.      190.        78.          9414.
                      INCHES                    2.12      3.86       3.99           3.99
                          MM                   53.81     98.07     101.22         101.22
                       AC-FT                    7304.    13310.     13738.         13738.
                  THOUS CU M                    9009.    16418.     16945.         16945.

*OVF*
                                              STATION      1

                               INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
              0.     2000.      4000.      6000.      8000.     10000.     12000.     14000.     16000.     18000.         0.         0.         0.
 0.30     1I
 1.00     2I
 1.30     3I
 2.00     4I
 2.30     5I
 3.00     6I
 3.30     7I
 4.00     8I
 4.30     9I
 5.00    10I...................................................................................................
 5.30    11I
 6.00    12I
 6.30    13I
 7.00    14I
 7.30    15I
 8.00    16I
 8.30    17I
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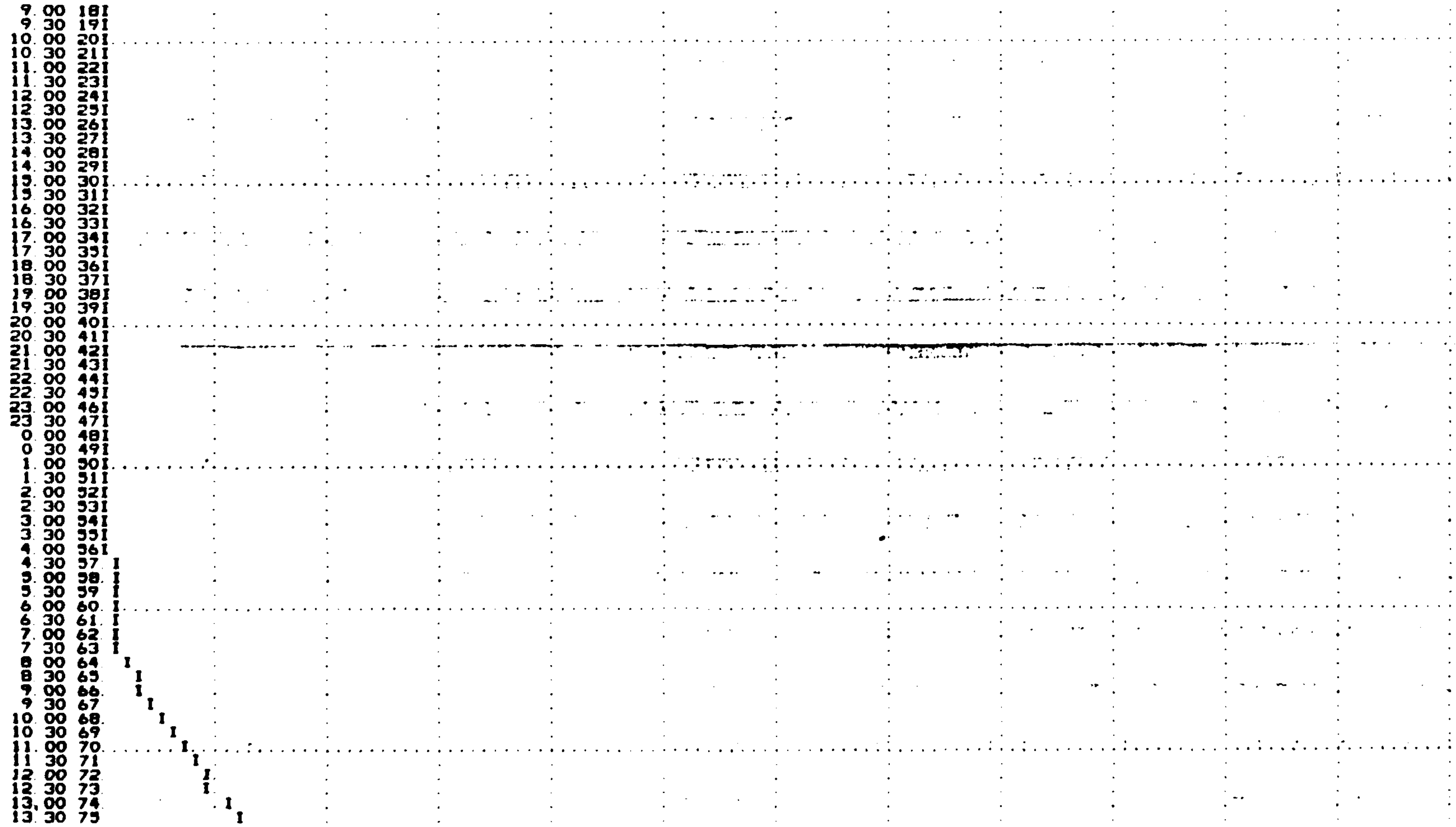
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17.30 35
18.00 36
18.30 37
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19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
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0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
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10.30 69
11.00 70
11.30 71
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12.30 73
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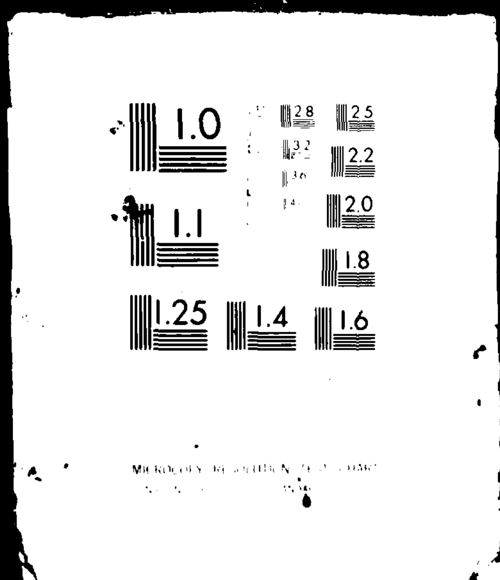
AD-A109 795 FLAHERTY-GIAVARA ASSOCIATES NEW HAVEN CT F/G 13/13
NATIONAL DAM SAFETY PROGRAM. OTSEGO LAKE DAM (INVENTORY NUMBER --ETC(U)
JUL 81 H C FLAHERTY DACW51-81-C-0006

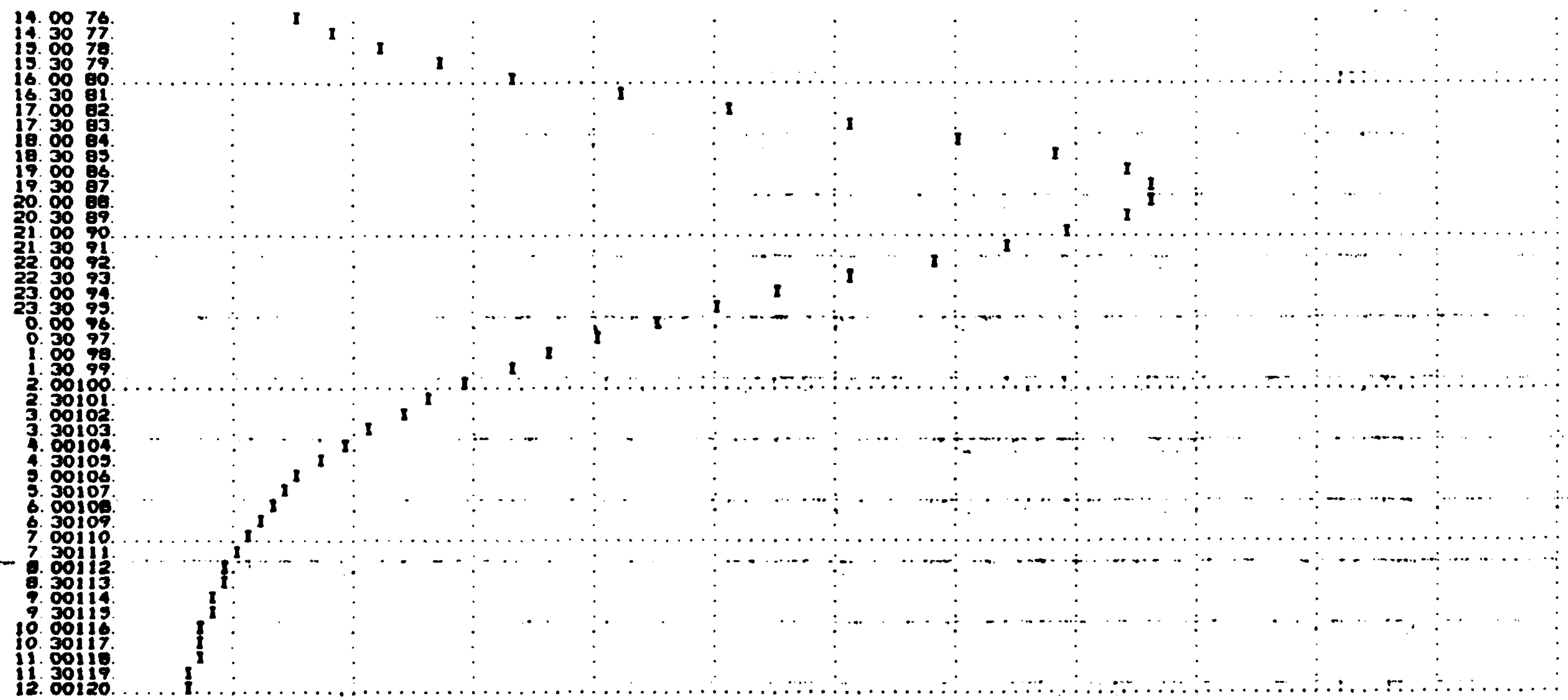
UNCLASSIFIED NL

3 of 7
AD
A109795

3 OF 7

AD-A109795





DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

34.	32.	31.	30.	29.	28.	26.	25.	25.	24.
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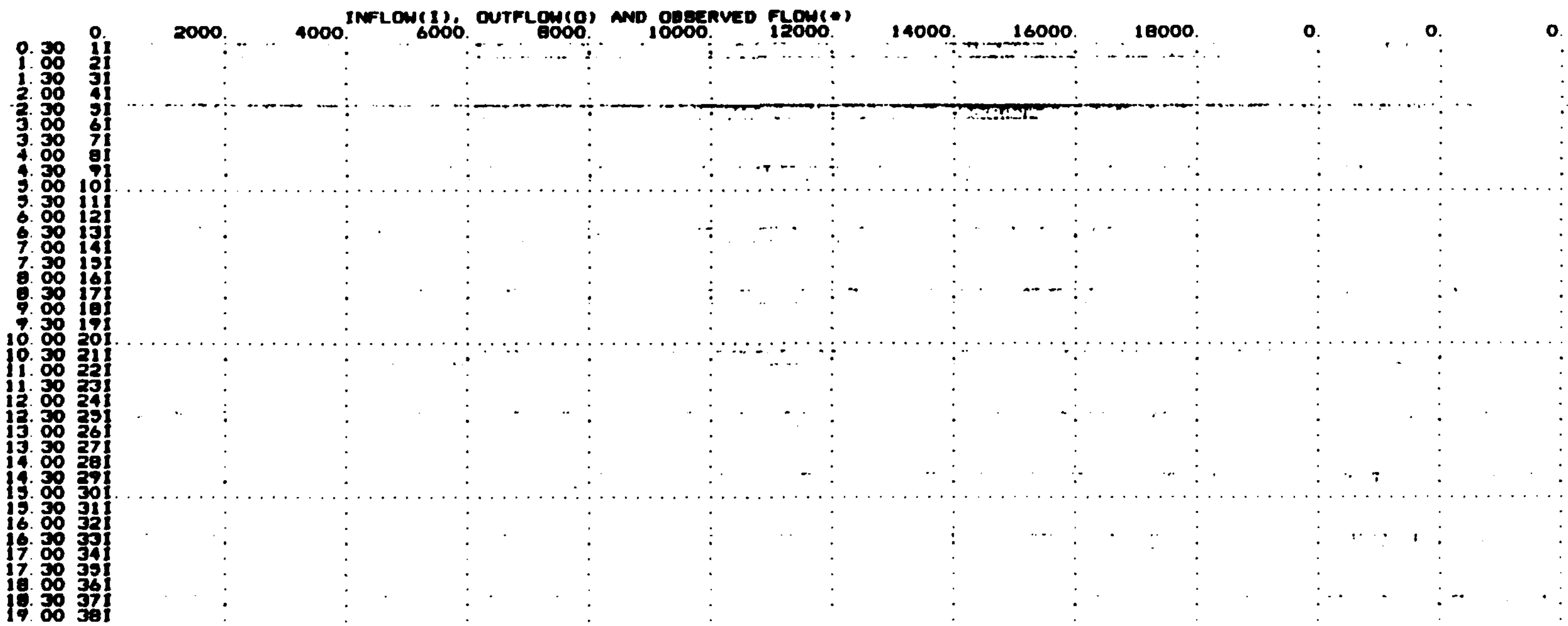
16.	16.	15.	15.	14.	14.	14.	14.	14.	14.
14.	14.	15.	16.	16.	17.	18.	18.	18.	18.
18.	17.	16.	15.	14.	13.	12.	11.	11.	14.
20.	29.	42.	58.	77.	97.	117.	137.	155.	172.

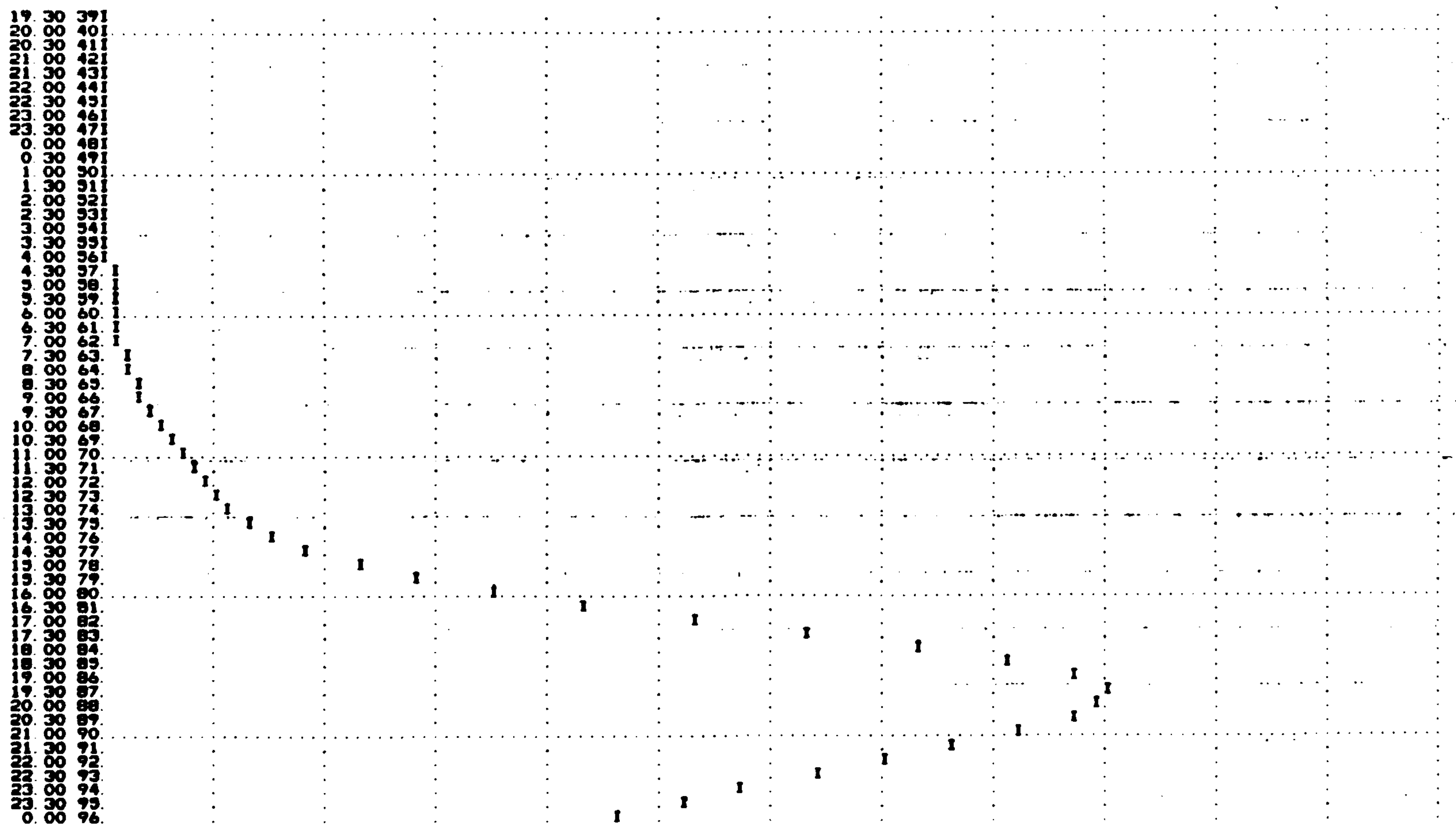
195.	237.	306.	406.	538.	698.	878.	1069.	1261.	1445.
1616.	1772.	1943.	2184.	2537.	3033.	3698.	4544.	5567.	6924.
8685.	10659.	12673.	14586.	16207.	17346.	17908.	17897.	17377.	16452.
15288.	14022.	12724.	11472.	10320.	9279.	8344.	7506.	6753.	6073.
5456.	4906.	4415.	3967.	3560.	3191.	2890.	2640.	2413.	2207.
2049.	1927.	1814.	1708.	1610.	1518.	1432.	1364.	1310.	1258.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	17908.	15296.	6969.	2877.	345243.
CMS	507.	433.	197.	81.	9776.
INCHES		2.20	4.01	4.14	4.14
MM		55.88	101.84	105.12	105.12
AC-FT		7585.	13822.	14266.	14266.
THOUS CU M		9355.	17049.	17597.	17597.

DVF

STATION 1

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0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
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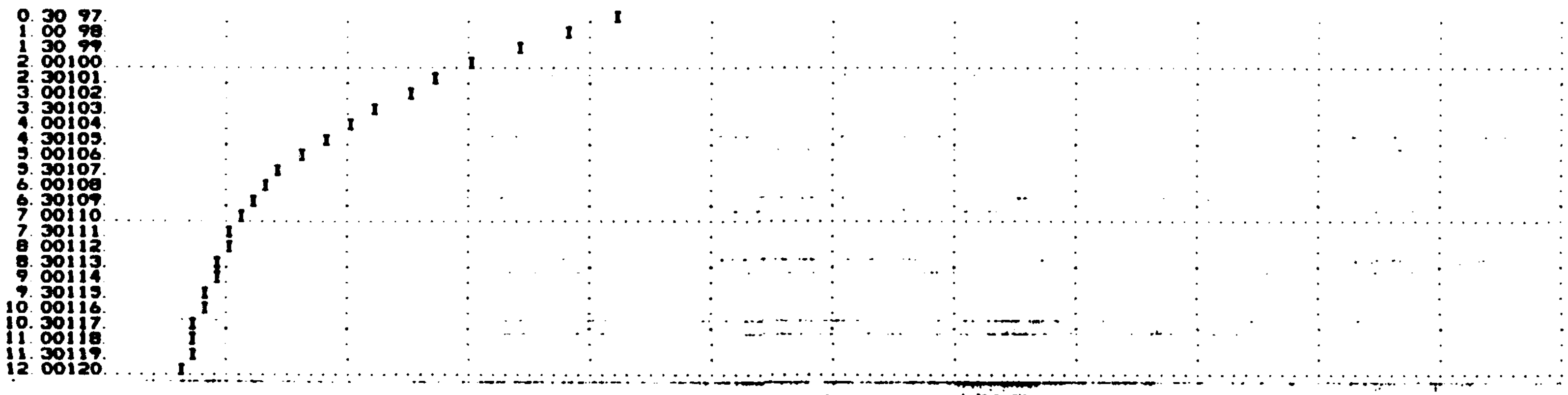

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

35.	33.	32.	31.	30.	29.	27.	26.	25.	25.
24.	23.	22.	21.	20.	20.	19.	18.	18.	17.
17.	16.	16.	15.	15.	15.	14.	14.	14.	14.
14.	15.	15.	16.	17.	18.	19.	19.	19.	19.
18	18.	17.	16.	15.	14.	13.	12.	12.	14.
20.	30.	43.	60.	80.	100.	122.	142.	161.	178.
202.	246.	317.	421.	558.	724.	911.	1109.	1307.	1498.
1676.	1837.	2015.	2265.	2631.	3146.	3835.	4712.	5773.	7180.
9006.	11053.	13143.	15126.	16808.	17988.	18572.	18560.	18021.	17062.
15894.	14541.	13196.	11897.	10702.	9623.	8653.	7784.	7004.	6298.
5638.	5087.	4579.	4114.	3691.	3309.	2997.	2738.	2502.	2289.
2125.	1999.	1881.	1771.	1669.	1574.	1485.	1414.	1358.	1304.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	18572.	15862.	7227.	2984.	358030.
CMS	526.	449.	205.	84.	10138.
INCHES		2.28	4.16	4.29	4.29
MM		57.95	105.62	109.01	109.01
AC-FT		7865.	14334.	14795	14795.
THOUS CU M		9702.	17681.	18249.	18249.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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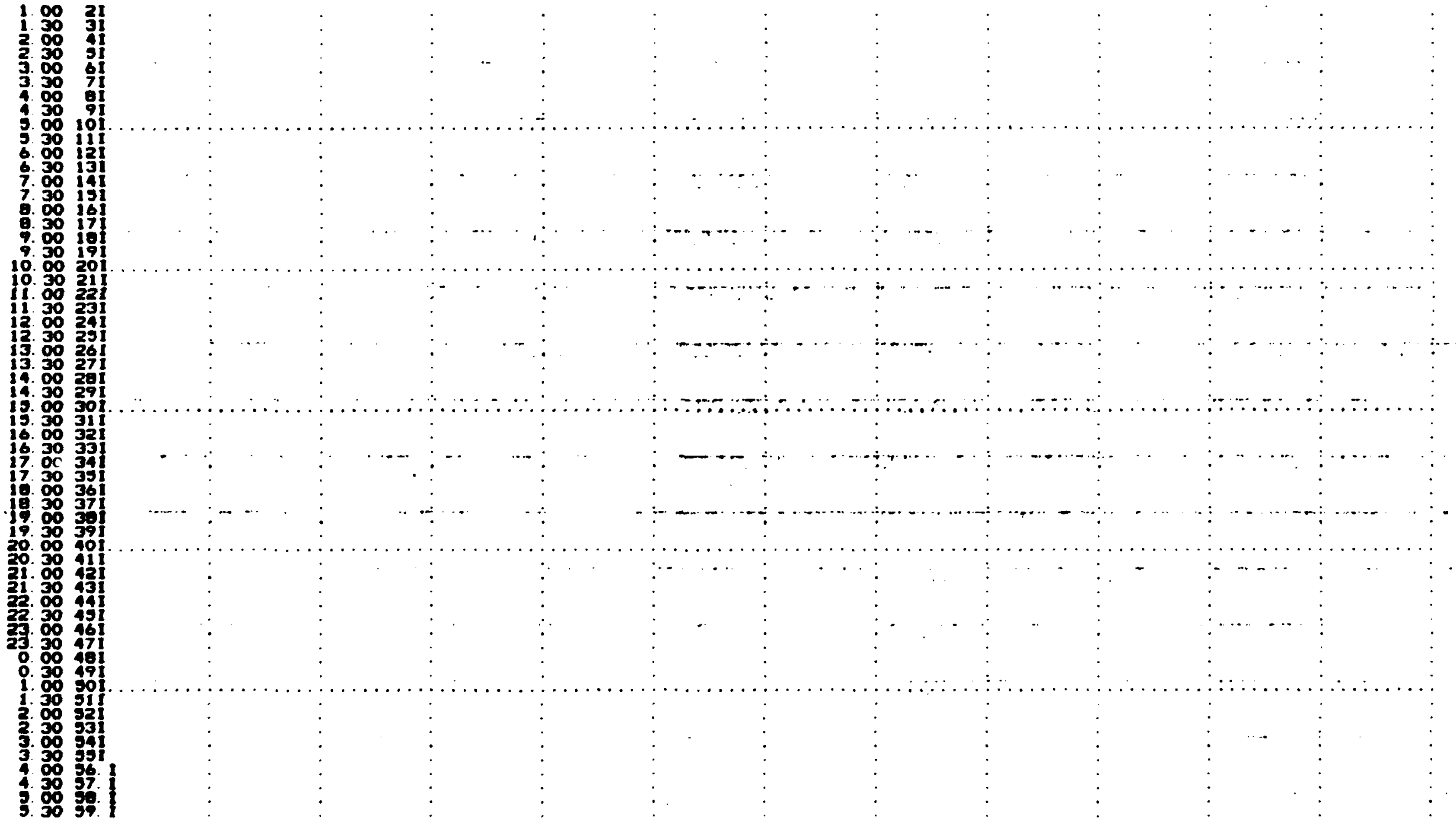
0.30 II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19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
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2.30 53
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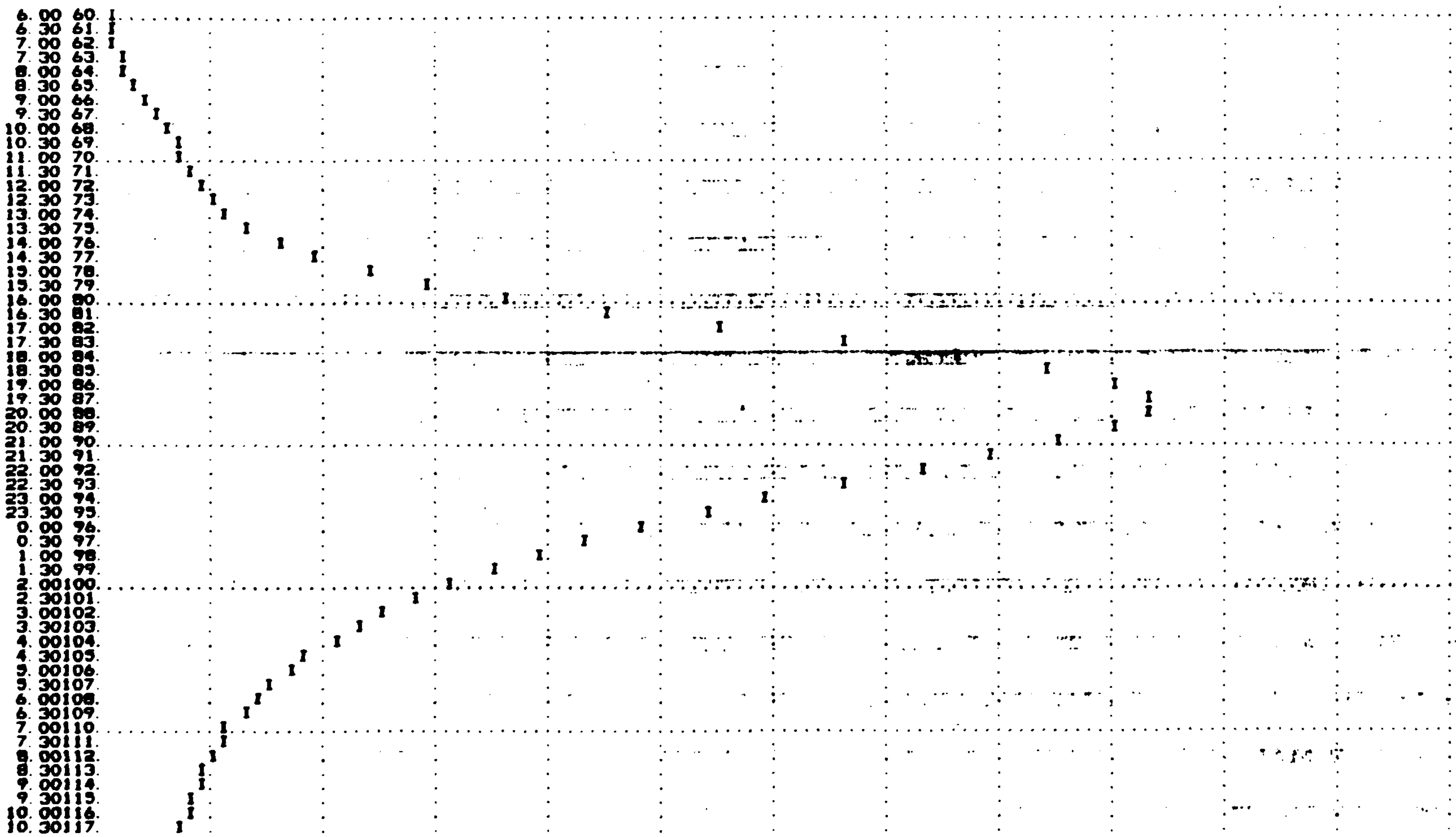
5.30 59.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10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
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2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.

```
11.00118.        I
11.30119.        I
12.00120.........I...........................................................
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OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

36.	35.	33.	32.	31.	30.	28.	27.	26.	25.
24.	24.	23.	22.	21.	20.	20.	19.	18.	18.
17.	17.	16.	16.	15.	15.	15.	15.	15.	15.
15.	15.	16.	17.	18.	19.	19.	20.	20.	20.
19.	18.	17.	16.	15.	14.	13.	12.	12.	15.
21.	31.	45.	62.	82.	104.	126.	147.	167.	185.
209.	254.	329.	436.	578.	750.	943.	1148.	1354.	1552.
1736.	1903.	2087.	2346.	2725.	3258.	3972.	4880.	5979.	7437.
9328.	11448.	13612.	15667.	17408.	18631.	19235.	19223.	18664.	17671.
16420.	15061.	13667.	12322.	11084.	9967.	8962.	8062.	7254.	6523.
5860.	5269.	4742.	4261.	3823.	3427.	3104.	2835.	2591.	2370.
2201.	2070.	1948.	1834.	1729.	1630.	1538.	1465.	1407.	1351.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19235.	16429.	7485.	3090.	370817.
CMS	545.	465.	212.	88.	10500.
INCHES		2.36	4.31	4.44	4.44
MM		60.02	109.39	112.90	112.90
AC-FT		8146.	14848.	15323.	15323.
THOUS CU M		10048.	18312.	18901.	18901.

OVF

STATION I T

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  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I.................................................................................................
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
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  9.30  19I
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 11.00  22I
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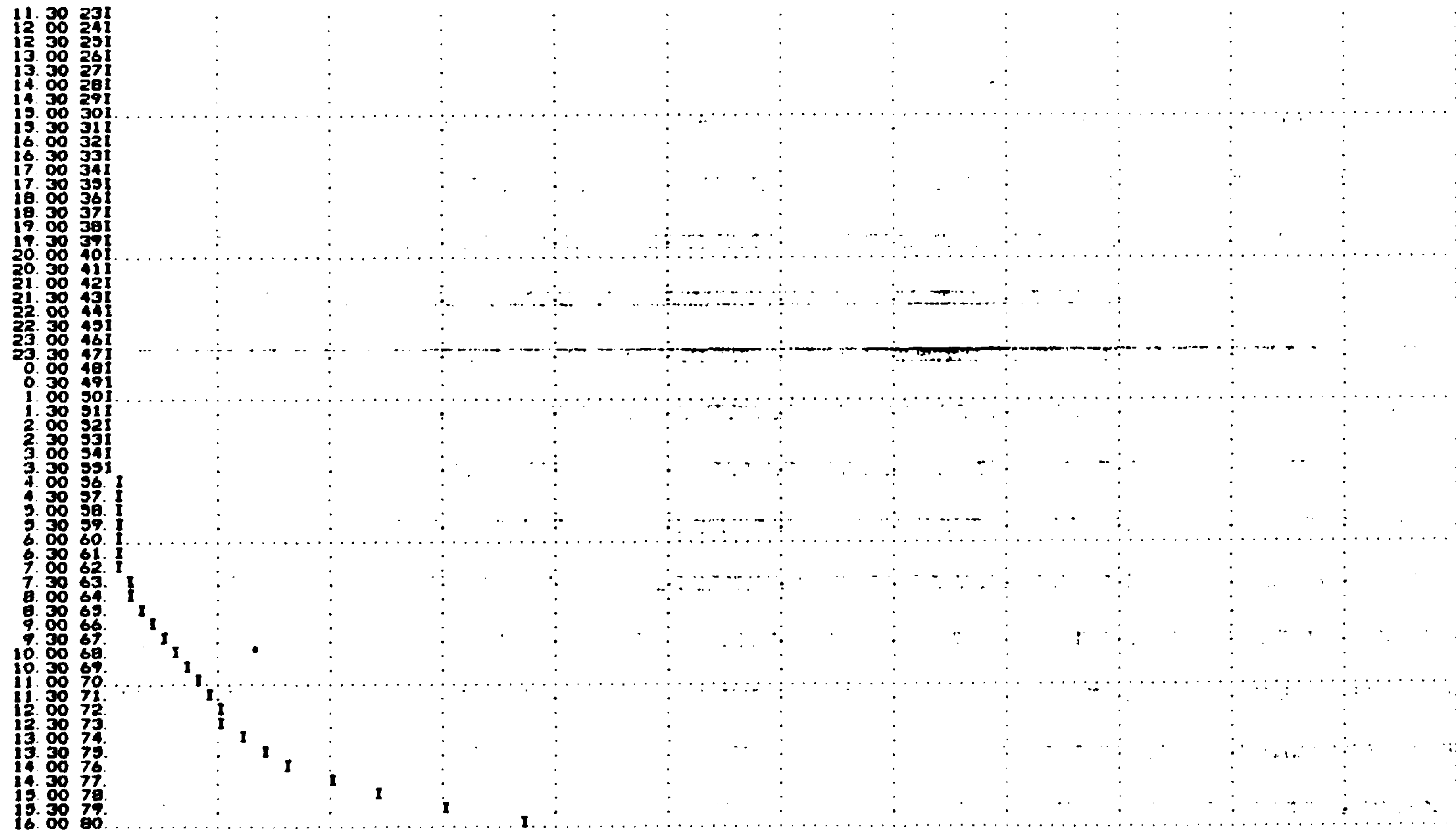
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15.30 31
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19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56.
4.30 57.
5.00 58.
5.30 59.
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9.30 67.
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11.30 71.
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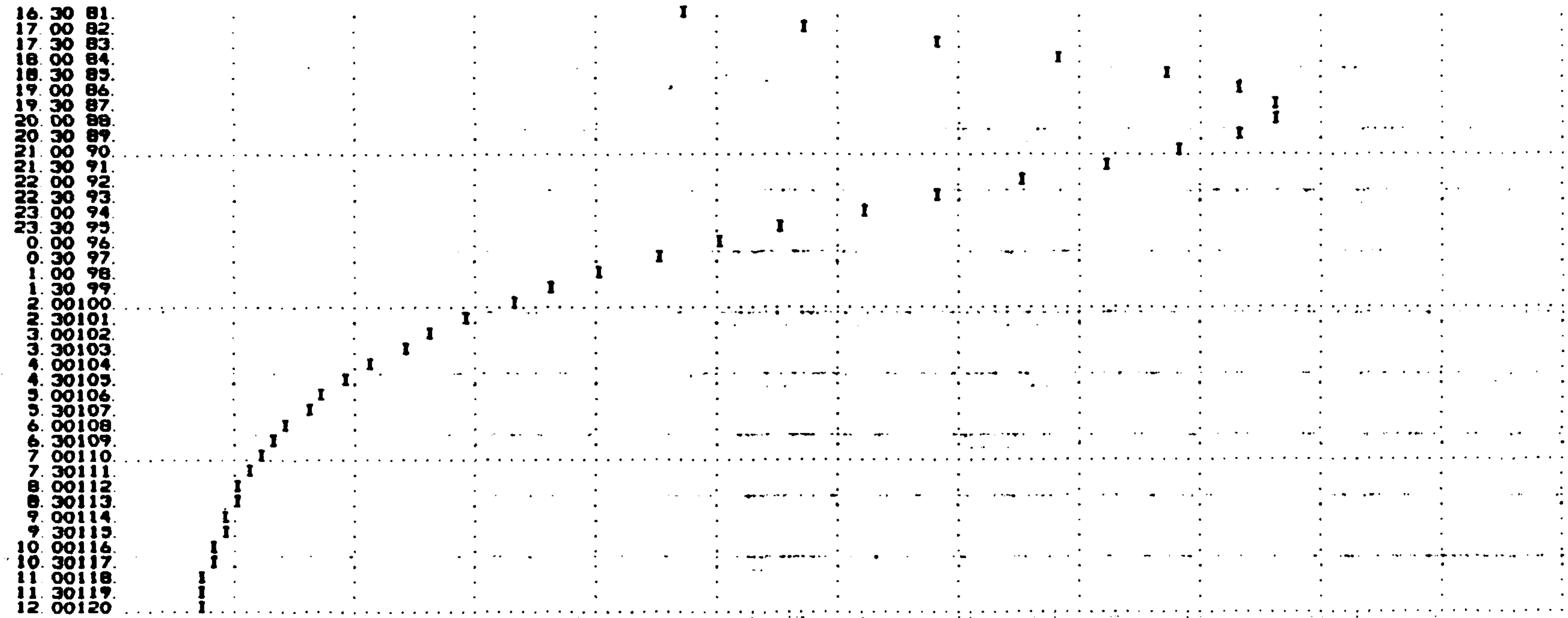

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

37.	36.	34.	33.	32.	31.	29.	28.	27.	26.
25.	24.	23.	23.	22.	21.	20.	20.	19.	19.
18.	17.	17.	16.	16.	16.	15.	15.	15.	15.
15.	16.	17.	17.	18.	19.	20.	20.	20.	20.
20.	19.	18.	17.	16.	14.	13.	13.	13.	15.
22.	32.	46.	65.	85.	108.	130.	152.	173.	191.
216.	263.	340.	451.	598.	775.	976.	1188.	1401.	1606.
1796.	1968.	2159.	2427.	2819.	3370.	4109.	5049.	6185.	7693.
9630.	11843.	14081.	16207.	18008.	19273.	19898.	19886.	19308.	18280.
16987.	15580.	14138.	12747.	11467.	10310.	9272.	8340.	7904.	6748.
6062.	5451.	4906.	4408.	3955.	3545.	3211.	2933.	2681.	2452.

2277.	2141.	2015.	1898.	1788.	1687.	1592.	1515.	1455.	1397.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19898.	16995.	7743.	3197.	383603.
CMS	563.	481.	219.	91.	10862.
INCHES		2.44	4.46	4.60	4.60
MM		62.09	113.16	116.79	116.79
AC-FT		8427.	15358.	15851.	15851.
THOUS CU M		10395.	18944.	19552.	19552.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I.................................................................................................
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I.................................................................................................
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I.................................................................................................
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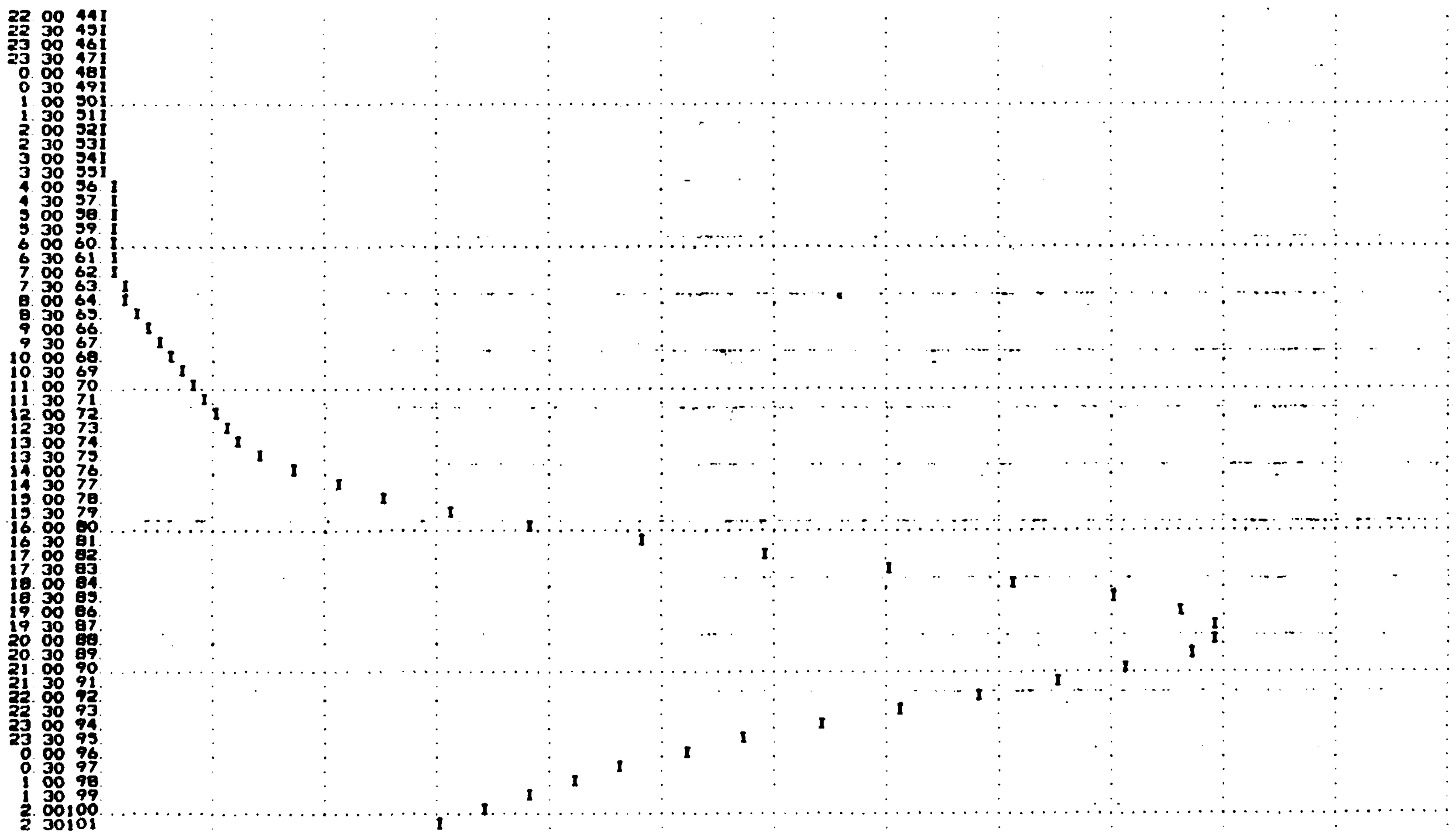
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23 30 95
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0 30 97
1 00 98
1 30 99
2 00100
2 30101

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 3 00102.                          I
 3 30103.                        I
 4 00104                       I
 4 30105                     I
 5 00106.                  I
 5 30107                  I
 6 00108.               I
 6 30109.             I
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 7 30111            I
 8 00112.           I
 8 30113           I
 9 00114.         I.
 9 30115          I.
10 00116.        I
10 30117         I
11 00118.        I .
11 30119        I
12 00120. ....  I.
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

62.	60.	57.	55.	53.	51.	49.	47.	45.	44.
42.	41.	39.	38.	36.	35.	34.	33.	32.	31.
30.	29.	28.	27.	27.	26.	26.	25.	25.	25.
26.	26.	28.	29.	31.	32.	33.	34.	34.	34.
33.	31.	30.	28.	26.	24.	22.	21.	21.	26.
36.	53.	77.	108.	142.	179.	217.	254.	288.	319.
361.	438.	566.	792.	996.	1292.	1626.	1979.	2334.	2676.
2993.	3281.	3598.	4045.	4699.	5617.	6849.	8414.	10309.	12822.
16083.	19738.	23469.	27012.	30014.	32122.	33164.	33143.	32180.	30467.
28311.	25966.	23563.	21245.	19111.	17184.	15453.	13900.	12506.	11247.
10103.	9085.	8176.	7347.	6592.	5909.	5352.	4888.	4468.	4087.
3795.	3569.	3359.	3163.	2981.	2811.	2653.	2526.	2425.	2329.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	33164.	28325.	12905.	5328.	639339.
CMS	939.	802.	365.	151.	18104.
INCHES		4.07	7.43	7.66	7.66
MM		103.49	188.60	194.66	194.66
AC-FT		14046.	25597.	26419.	26419.
THOUS CU M		17325.	31573.	32587.	32587.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.   4000.   8000.  12000.  16000.  20000.  24000.  28000.  32000.  36000.   0.   0.   0.
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1.00   2I
1.30   3I
2.00   4I
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3.00   6I
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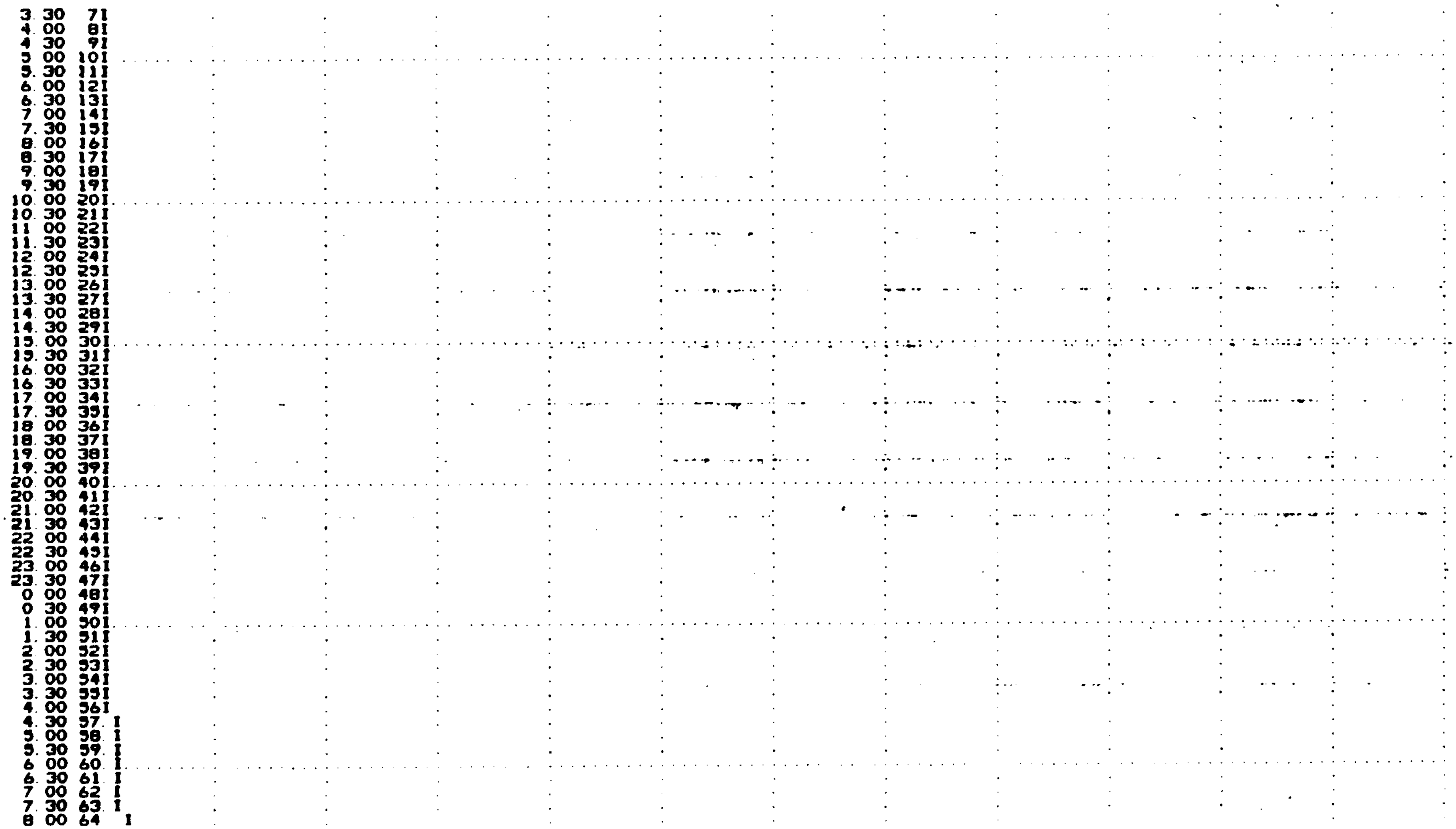
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23.00 46I
23.30 47I
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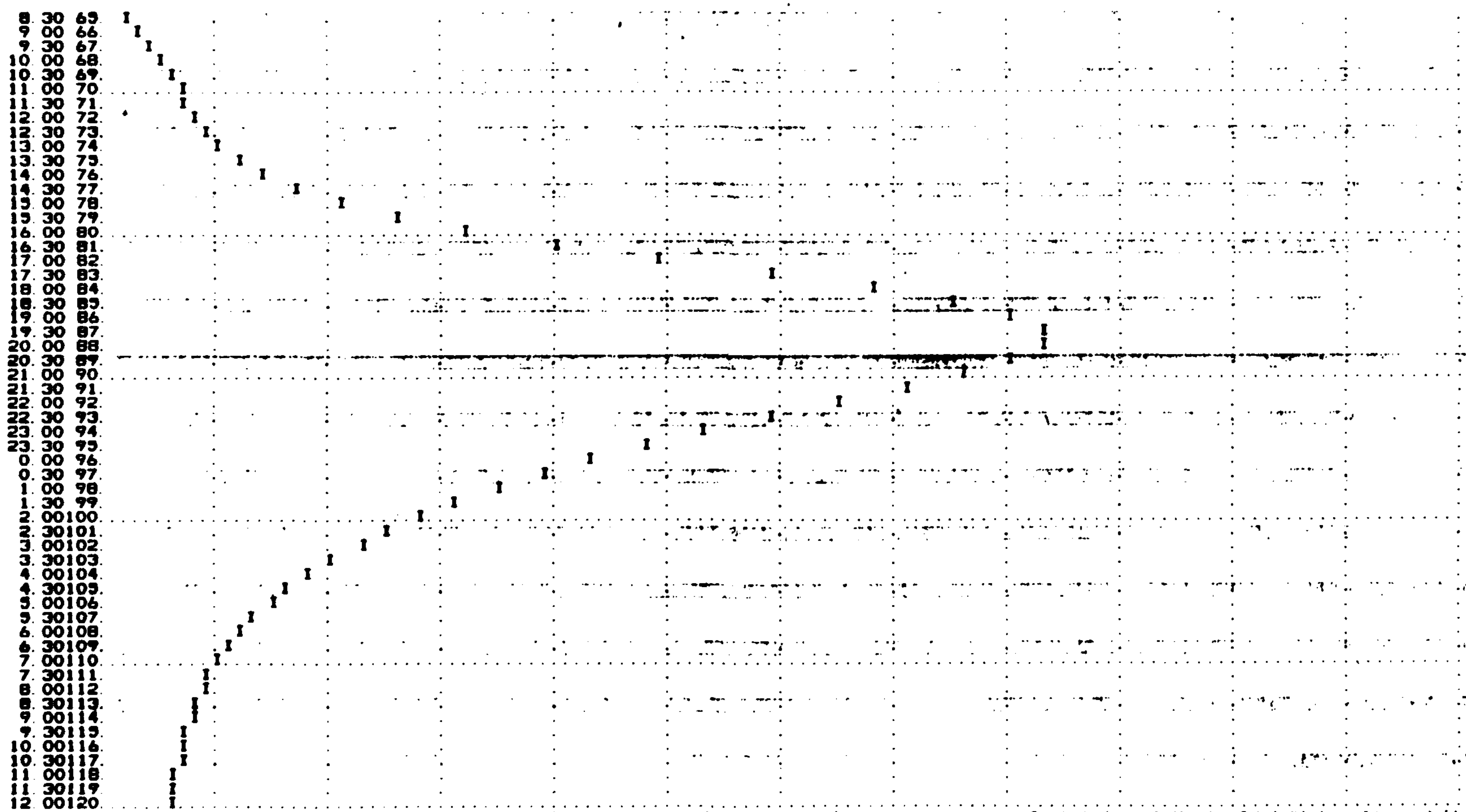
0.30 49I
1.00 50I
1.30 51I
2.00 52I
2.30 53I
3.00 54I
3.30 55I
4.00 56I
4.30 57. I
5.00 58 I
5.30 59. I
6.00 60. I
6.30 61 I
7.00 62 I
7.30 63. I
8.00 64 I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18.00 84.
18.30 85.
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19.30 87.
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21.30 91.
22.00 92.
22.30 93.
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8.30113.
9.00114.
9.30115.
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10.30117.
11.00118.
11.30119.
12.00120.

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

124.	119.	115.	110.	106.	102.	98.	94.	91.	88.
84.	81.	78.	75.	73.	70.	68.	66.	64.	62.
60.	58.	57.	55.	53.	52.	51.	50.	50.	50.
51.	53.	55.	58.	61.	64.	66.	68.	68.	67.
65.	63.	59.	56.	52.	48.	45.	42.	42.	51.
72.	107.	155.	215.	284.	359.	434.	507.	575.	637.
721.	877.	1133.	1504.	1992.	2585.	3252.	3959.	4669.	5352.
5985.	6561.	7197.	8090.	9397.	11235.	13698.	16829.	20617.	25645.
32166.	39476.	46938.	54023.	60027.	64243.	66327.	66286.	64360.	60935.
56622.	51933.	47127.	42489.	38222.	34368.	30905.	27801.	25013.	22494.
20206.	18170.	16353.	14693.	13184.	11818.	10704.	9777.	8936.	8174.
7590.	7138.	6717.	6326.	5961.	5622.	5305.	5051.	4850.	4658.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	66327.	56650.	25810.	10656.	1278678.
CMS	1878.	1604.	731.	302.	36208.
INCHES		8.15	14.85	15.33	15.33
MM		206.98	377.20	389.32	389.32
AC-FT		28091.	51193.	52838.	52838.
THOUS CU M		34650.	63146.	65175.	65175.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
              0.   10000.   20000.   30000.   40000.   50000.   60000.   70000.      0.      0.      0.      0.      0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I.........................................................................................................
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I.........................................................................................................
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
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14.00	28
14.30	29
15.00	30
15.30	31
16.00	32
16.30	33
17.00	34
17.30	35
18.00	36
18.30	37
19.00	38
19.30	39
20.00	40
20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50
1.30	51
2.00	52
2.30	53
3.00	54
3.30	55
4.00	56
4.30	57
5.00	58.
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7.00	62.
7.30	63.
8.00	64.
8.30	65.
9.00	66.
9.30	67.
10.00	68.
10.30	69.
11.00	70.
11.30	71.
12.00	72.
12.30	73.
13.00	74.
13.30	75.
14.00	76.
14.30	77.
15.00	78.
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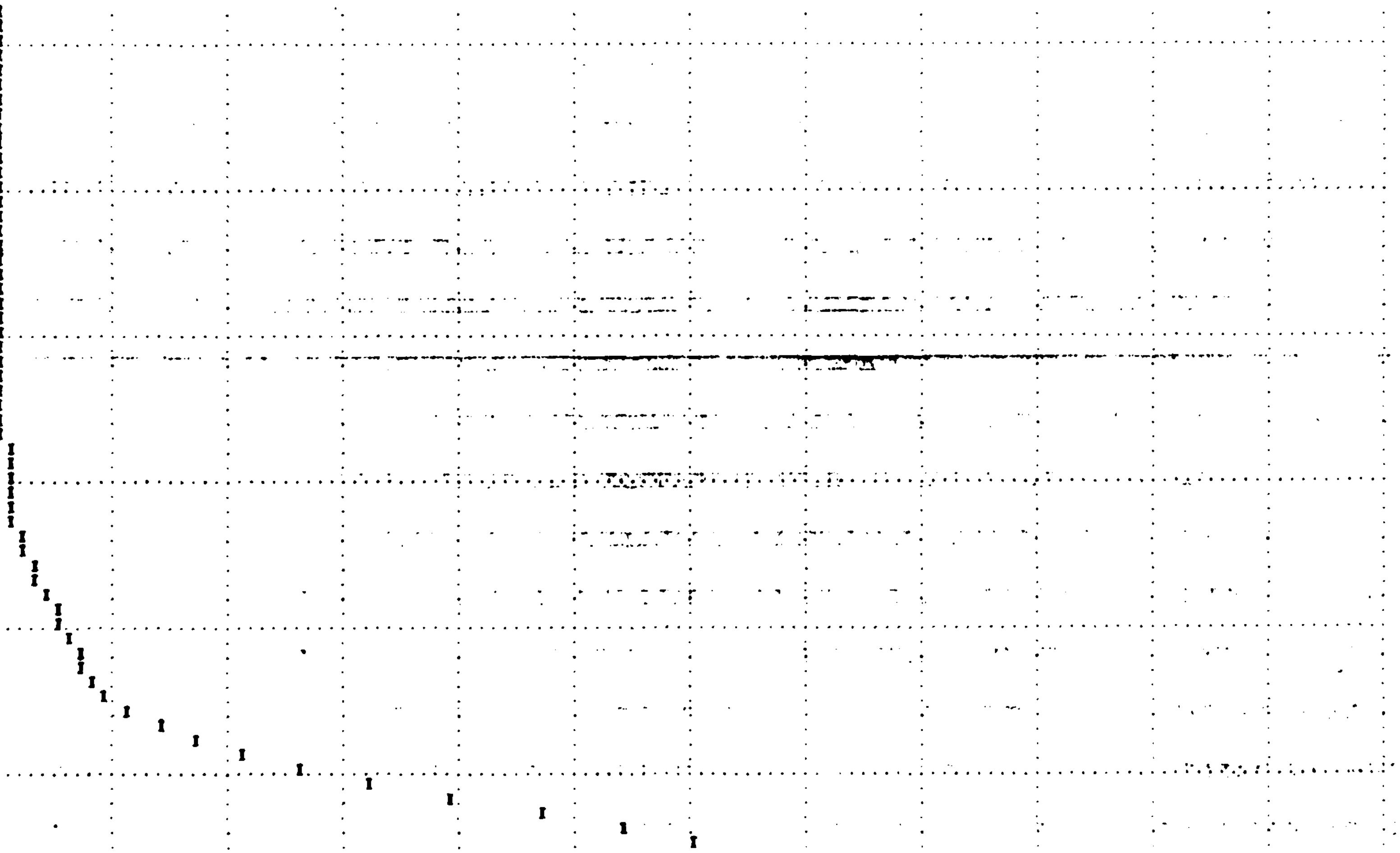

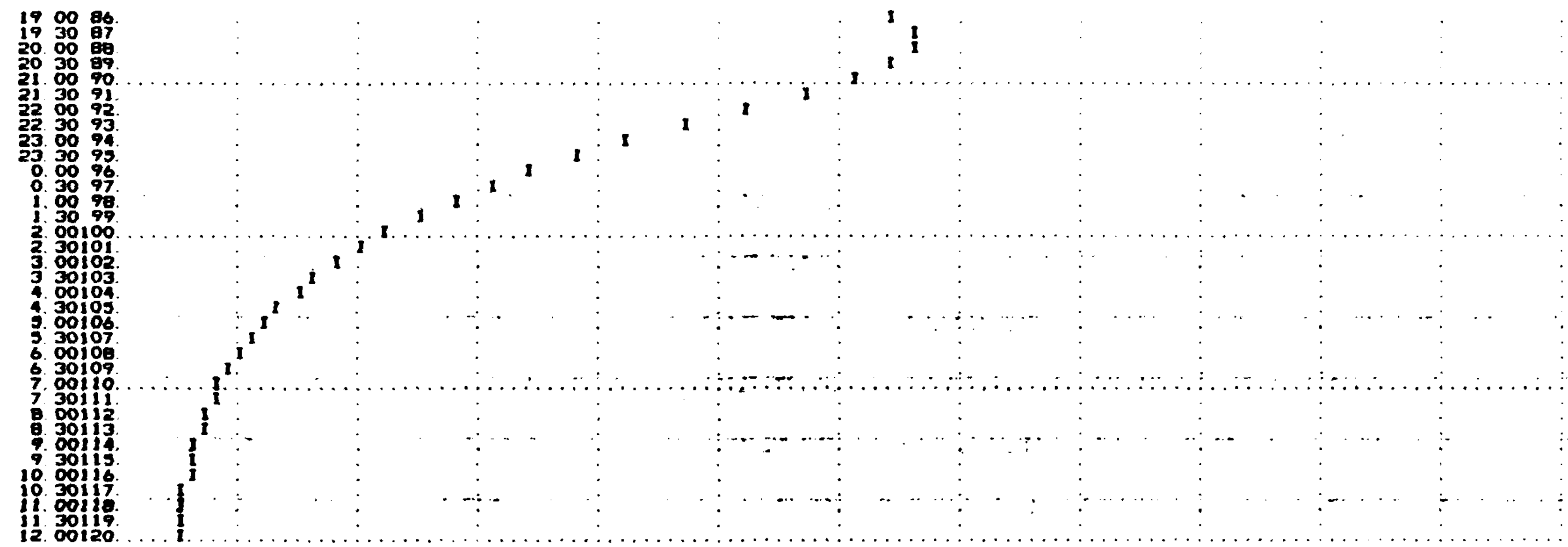

OVN

********** ********** ********** ********** **********

SUB-AREA RUNOFF COMPUTATION

INFLOW HYDROGRAPH - SUBWATERSHED NO. 6

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	0	0	0	0	0	1	0	0

HYDROGRAPH DATA

IHYDG	IUHG	TAREA	SNAP	TRSDA	TRSPC	RATIO	ISNOW	ISAME	LOCAL
1	1	10.33	0.00	10.33	0.00	0.000	0	1	0

PRECIP DATA

SPFE	PMS	R6	R12	R24	R48	R72	R96
0.00	19.30	86.00	100.00	112.00	119.00	0.00	0.00

TRSPC COMPUTED BY THE PROGRAM IS 0.801

LOSS DATA

LROPT	STRKR	DLTKR	RTIOL	ERAIN	STRKS	RTIOK	STRTL	CNSTL	ALSMX	RTIMP
0	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.10	0.00	0.02

UNIT HYDROGRAPH DATA
TP= 3.00 CP=0.63 NTA= 0

RECESSION DATA
STRTQ= -2.00 QRCSN= -0.10 RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 6.86 AND R= 5.33 INTERVALS

UNIT HYDROGRAPH 32 END-OF-PERIOD ORDINATES, LAG= 2.99 HOURS, CP= 0.63 VOL= 1.00

90.	329.	650.	992.	1269.	1415.	1401.	1233.	1021.	846.
701.	580.	481.	398.	330.	273.	226.	187.	155.	129.
107.	88.	73.	61.	50.	42.	34.	29.	24.	20.
16.	13.								

END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	20.	1.02	6.30	61	0.18	0.13	0.05	154.
1.01	1.00	2	0.00	0.00	0.00	19.	1.02	7.00	62	0.18	0.13	0.05	198.
1.01	1.30	3	0.00	0.00	0.00	18.	1.02	7.30	63	0.18	0.13	0.05	279.
1.01	2.00	4	0.00	0.00	0.00	18.	1.02	8.00	64	0.18	0.13	0.05	400.
1.01	2.30	5	0.00	0.00	0.00	17.	1.02	8.30	65	0.18	0.13	0.05	553.
1.01	3.00	6	0.00	0.00	0.00	17.	1.02	9.00	66	0.18	0.13	0.05	723.
1.01	3.30	7	0.00	0.00	0.00	16.	1.02	9.30	67	0.18	0.13	0.05	891.
1.01	4.00	8	0.00	0.00	0.00	16.	1.02	10.00	68	0.18	0.13	0.05	1039.
1.01	4.30	9	0.00	0.00	0.00	15.	1.02	10.30	69	0.18	0.13	0.05	1161.
1.01	5.00	10	0.00	0.00	0.00	14.	1.02	11.00	70	0.18	0.13	0.05	1263.
1.01	5.30	11	0.00	0.00	0.00	14.	1.02	11.30	71	0.18	0.13	0.05	1347.
1.01	6.00	12	0.00	0.00	0.00	14.	1.02	12.00	72	0.18	0.13	0.05	1416.
1.01	6.30	13	0.01	0.00	0.01	13.	1.02	12.30	73	0.66	0.62	0.05	1517.
1.01	7.00	14	0.01	0.00	0.01	13.	1.02	13.00	74	0.66	0.62	0.05	1724.
1.01	7.30	15	0.01	0.00	0.01	12.	1.02	13.30	75	0.80	0.75	0.05	2091.
1.01	8.00	16	0.01	0.00	0.01	12.	1.02	14.00	76	0.80	0.75	0.05	2648.
1.01	8.30	17	0.01	0.00	0.01	12.	1.02	14.30	77	1.00	0.95	0.05	3394.
1.01	9.00	18	0.01	0.00	0.01	12.	1.02	15.00	78	1.00	0.95	0.05	4299.
1.01	9.30	19	0.01	0.00	0.01	11.	1.02	15.30	79	1.21	1.16	0.05	5314.
1.01	10.00	20	0.01	0.00	0.01	11.	1.02	16.00	80	3.84	3.79	0.05	6620.
1.01	10.30	21	0.01	0.00	0.01	11.	1.02	16.30	81	0.93	0.88	0.05	8309.
1.01	11.00	22	0.01	0.00	0.01	11.	1.02	17.00	82	0.93	0.88	0.05	10139.
1.01	11.30	23	0.01	0.00	0.01	11.	1.02	17.30	83	0.73	0.68	0.05	11873.
1.01	12.00	24	0.01	0.00	0.01	10.	1.02	18.00	84	0.73	0.68	0.05	13207.
1.01	12.30	25	0.04	0.00	0.04	10.	1.02	18.30	85	0.09	0.04	0.05	13883.
1.01	13.00	26	0.04	0.00	0.04	10.	1.02	19.00	86	0.09	0.04	0.05	13749.
1.01	13.30	27	0.05	0.00	0.05	10.	1.02	19.30	87	0.09	0.04	0.05	12832.
1.01	14.00	28	0.05	0.00	0.05	11.	1.02	20.00	88	0.09	0.04	0.05	11500.
1.01	14.30	29	0.06	0.00	0.06	11.	1.02	20.30	89	0.09	0.04	0.05	10068.
1.01	15.00	30	0.06	0.00	0.06	12.	1.02	21.00	90	0.09	0.04	0.05	8629.
1.01	15.30	31	0.08	0.00	0.07	13.	1.02	21.30	91	0.09	0.04	0.05	7294.
1.01	16.00	32	0.24	0.00	0.24	15.	1.02	22.00	92	0.09	0.04	0.05	6142.
1.01	16.30	33	0.06	0.00	0.06	17.	1.02	22.30	93	0.09	0.04	0.05	5186.
1.01	17.00	34	0.06	0.00	0.06	19.	1.02	23.00	94	0.09	0.04	0.05	4395.
1.01	17.30	35	0.05	0.00	0.04	21.	1.02	23.30	95	0.09	0.04	0.05	3739.
1.01	18.00	36	0.05	0.00	0.04	22.	1.03	0.00	96	0.09	0.04	0.05	3196.
1.01	18.30	37	0.01	0.00	0.01	23.	1.03	0.30	97	0.00	0.00	0.00	2742.
1.01	19.00	38	0.01	0.00	0.01	22.	1.03	1.00	98	0.00	0.00	0.00	2355.

FLAHERTY GIAVARA ASSOCIATES, P.C.

1.01	19.30	39	0.01	0.00	0.01	21.	1.03	1.30	99	0.00	0.00	0.00	2018.
1.01	20.00	40	0.01	0.00	0.01	19.	1.03	2.00	100	0.00	0.00	0.00	1719.
1.01	20.30	41	0.01	0.00	0.01	17.	1.03	2.30	101	0.00	0.00	0.00	1451.
1.01	21.00	42	0.01	0.00	0.01	15.	1.03	3.00	102	0.00	0.00	0.00	1348.
1.01	21.30	43	0.01	0.00	0.01	14.	1.03	3.30	103	0.00	0.00	0.00	1294.
1.01	22.00	44	0.01	0.00	0.01	12.	1.03	4.00	104	0.00	0.00	0.00	1243.
1.01	22.30	45	0.01	0.00	0.01	11.	1.03	4.30	105	0.00	0.00	0.00	1193.
1.01	23.00	46	0.01	0.00	0.01	10.	1.03	5.00	106	0.00	0.00	0.00	1146.
1.01	23.30	47	0.01	0.00	0.01	9.	1.03	5.30	107	0.00	0.00	0.00	1101.
1.02	0.00	48	0.01	0.00	0.01	8.	1.03	6.00	108	0.00	0.00	0.00	1057.
1.02	0.30	49	0.06	0.01	0.05	8.	1.03	6.30	109	0.00	0.00	0.00	1015.
1.02	1.00	50	0.06	0.01	0.05	12.	1.03	7.00	110	0.00	0.00	0.00	974.
1.02	1.30	51	0.06	0.01	0.05	20.	1.03	7.30	111	0.00	0.00	0.00	936.
1.02	2.00	52	0.06	0.01	0.05	32.	1.03	8.00	112	0.00	0.00	0.00	899.
1.02	2.30	53	0.06	0.01	0.05	48.	1.03	8.30	113	0.00	0.00	0.00	863.
1.02	3.00	54	0.06	0.01	0.05	65.	1.03	9.00	114	0.00	0.00	0.00	829.
1.02	3.30	55	0.06	0.01	0.05	83.	1.03	9.30	115	0.00	0.00	0.00	796.
1.02	4.00	56	0.06	0.01	0.05	98.	1.03	10.00	116	0.00	0.00	0.00	764.
1.02	4.30	57	0.06	0.01	0.05	111.	1.03	10.30	117	0.00	0.00	0.00	734.
1.02	5.00	58	0.06	0.01	0.05	122.	1.03	11.00	118	0.00	0.00	0.00	705.
1.02	5.30	59	0.06	0.01	0.05	130.	1.03	11.30	119	0.00	0.00	0.00	677.
1.02	6.00	60	0.06	0.01	0.05	138.	1.03	12.00	120	0.00	0.00	0.00	650.
									SUM	18.40	14.99	3.41	211234.
										(467.)(	381.)(	87.)(	5981.47)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13883.	10655.	4229.	1757.	210897.
CMS	393.	302.	120.	50.	5972.
INCHES		9.60	15.23	15.83	15.83
MM		243.72	386.93	401.99	401.99
AC-FT		5284.	8388.	8715.	8715.
THOUS CU M		6517.	10347.	10749.	10749.

```
*DVF*                                   STATION   1
                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)                        0.      0.      0.
         0.     2000.     4000.     6000.     8000.    10000.    12000.    14000.   0.   0.  PRECIP(L) AND EXCESS(X)
                                                                                    4.   3.      2.      1.      0.
         0.        0.        0.        0.        0.        0.        0.        0.
 0.30  11                                                                                                        L
 1.00  21                                                                                                        L
 1.30  31                                                                                                        L
 2.00  41                                                                                                        L
 2.30  51                                                                                                        L
 3.00  61                                                                                                        L
 3.30  71                                                                                                        L
 4.00  81                                                                                                        L
 4.30  91                                                                                                        L
 5.00 101                                                                                                        L
 5.30 111                                                                                                        L
 6.00 121                                                                                                        L
 6.30 131                                                                                                        L
 7.00 141                                                                                                        L
 7.30 151                                                                                                        L
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 8.30 171
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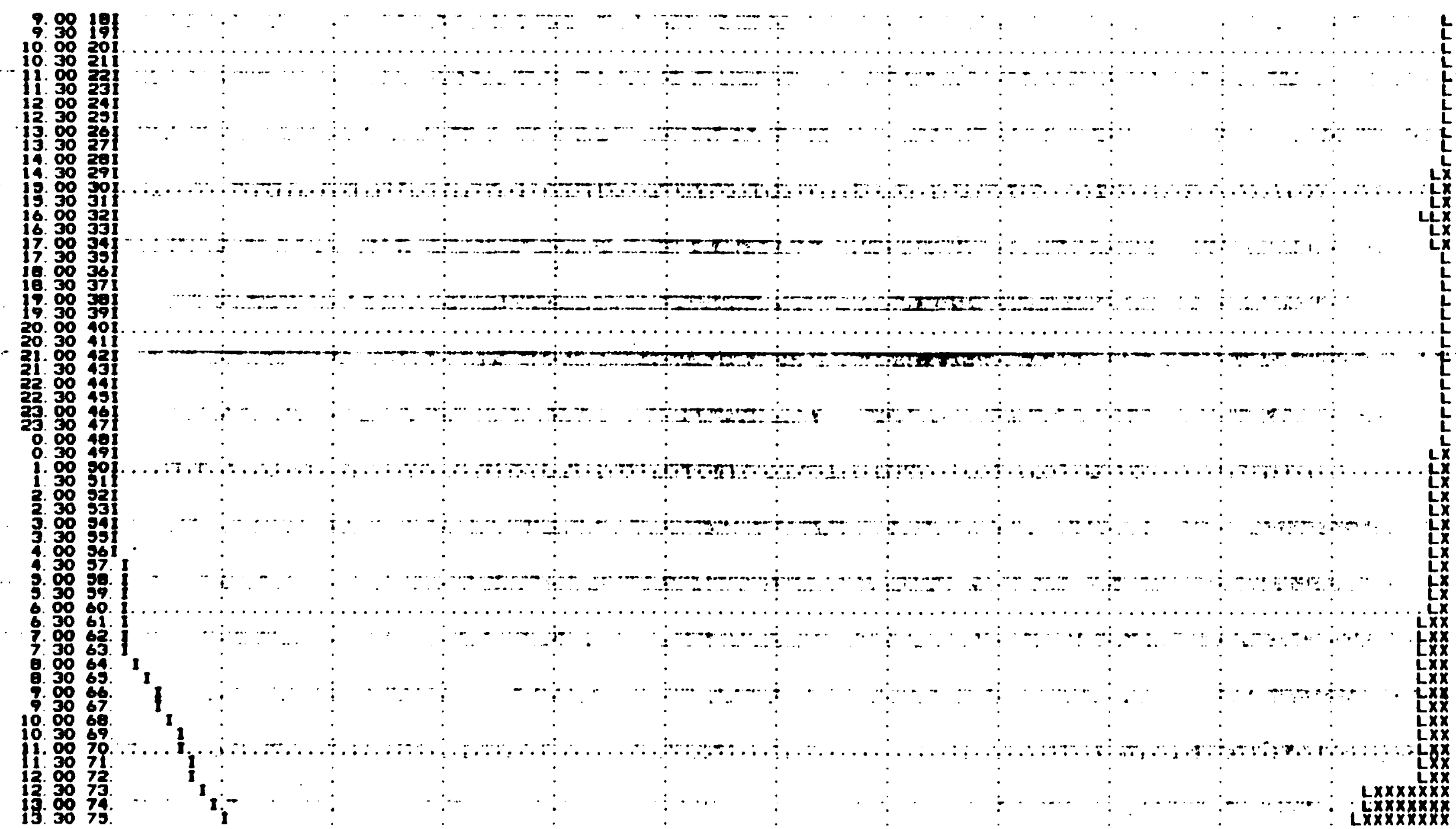
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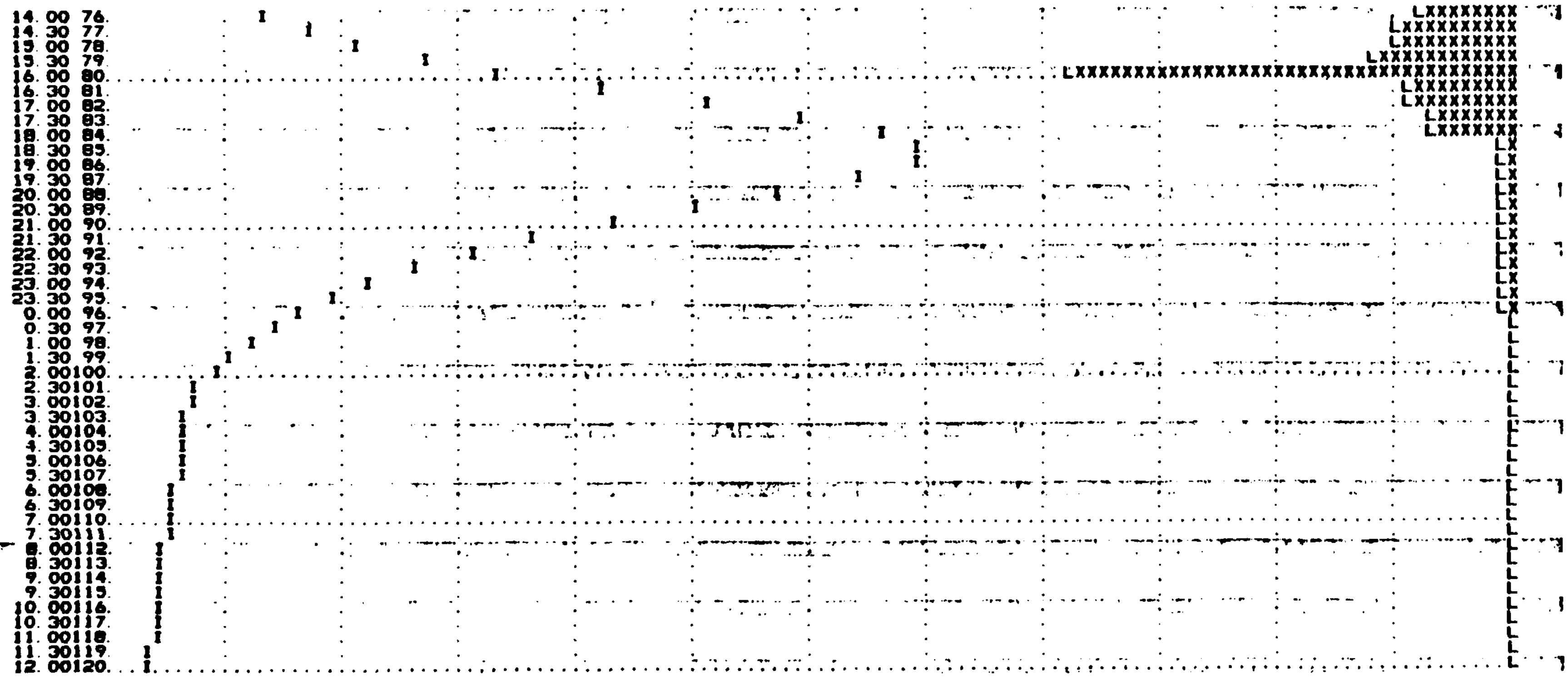

DVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

4.	4.	4.	4.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
3.	3.	3.	4.	4.	4.	5.	4.	4.	4.
3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
4.	6.	10.	13.	17.	20.	22.	24.	26.	28.
31.	40.	56.	80.	111.	145.	178.	208.	232.	253.

269.	283.	303.	345.	418.	530.	679.	860.	1063.	1324.
1662.	2028.	2375.	2641.	2777.	2750.	2566.	2300.	2013.	1726.
1459.	1228.	1037.	879.	748.	639.	548.	471.	404.	344.
290.	270.	259.	249.	239.	229.	220.	211.	203.	195.
187.	180.	173.	166.	159.	153.	147.	141.	135.	130.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2777.	2131.	846.	351.	42179.
CMS	79.	60.	24.	10.	1194.
INCHES		1.92	3.05	3.17	3.17
MM		48.74	77.39	80.40	80.40
AC-FT		1057.	1678.	1743.	1743.
THOUS CU M		1303.	2069.	2150.	2150.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

5.	5.	5.	4.	4.	4.	4.	4.	4.	4.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	4.	4.	5.	5.	6.	6.	6.	5.	5.
4.	4.	3.	3.	3.	2.	2.	2.	2.	3.
5.	8.	12.	16.	21.	25.	28.	30.	33.	34.
39.	50.	70.	100.	138.	181.	223.	260.	290.	316.
337.	354.	379.	431.	523.	662.	848.	1075.	1329.	1655.
2077.	2535.	2768.	3302.	3471.	3437.	3208.	2875.	2516.	2157.
1824.	1536.	1297.	1099.	935.	799.	686.	589.	504.	430.
363.	337.	324.	311.	298.	287.	275.	264.	254.	244.
234.	225.	216.	207.	199.	191.	183.	176.	169.	162.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3471.	2664.	1057.	439.	52724.
CMS	98.	75.	30.	12.	1493.
INCHES		2.40	3.81	3.96	3.96
MM		60.93	96.73	100.50	100.50
AC-FT		1321.	2097.	2179.	2179.
THOUS CU M		1629.	2587.	2687.	2687.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	4.	4.	5.	5.	6.	6.	6.	5.	5.
5.	4.	4.	3.	3.	2.	2.	2.	2.	3.
5.	8.	12.	17.	22.	26.	29.	32.	34.	36.
40.	52.	73.	104.	144.	188.	232.	270.	302.	328.
350.	368.	395.	448.	544.	688.	882.	1118.	1382.	1721.
2160.	2636.	3087.	3434.	3610.	3575.	3336.	2990.	2617.	2244.
1876.	1597.	1348.	1143.	972.	831.	713.	612.	529.	447.
377.	350.	337.	323.	310.	298.	286.	275.	264.	253.
243.	234.	224.	215.	207.	199.	191.	183.	176.	169.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3610.	2770.	1100.	457.	54833.
CMS	102.	78.	31.	13.	1553.
INCHES		2.49	3.96	4.11	4.11
MM		63.37	100.60	104.52	104.52
AC-FT		1374.	2181.	2266.	2266.

THOUS CU M		1694.	2690.	2795.	2795.

HYDROGRAPH AT BTA 1 FOR PLAN 1, RTIO 4

5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
4.	4.	4.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
4.	4.	4.	5.	6.	6.	6.	6.	6.	5.
5.	4.	4.	3.	3.	3.	2.	2.	2.	3.
5.	9.	13.	18.	22.	27.	30.	33.	35.	37.
42.	54.	75.	108.	149.	195.	241.	281.	314.	341.
364.	382.	410.	466.	564.	715.	916.	1161.	1435.	1787.
2243.	2738.	3206.	3566.	3749.	3712.	3465.	3105.	2717.	2330.
1969.	1658.	1400.	1187.	1010.	863.	740.	636.	545.	464.
392.	364.	349.	336.	322.	309.	297.	285.	274.	263.
253.	243.	233.	224.	215.	206.	198.	190.	183.	175.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3749.	2877.	1142.	475.	56942.
CMS	106.	81.	32.	13.	1612.
INCHES		2.59	4.11	4.27	4.27
MM		65.80	104.47	108.54	108.54
AC-FT		1427.	2265.	2353.	2353.
THOUS CU M		1760.	2794.	2902.	2902.

HYDROGRAPH AT BTA 1 FOR PLAN 1, RTIO 5

6.	5.	5.	5.	5.	5.	4.	4.	4.	4.
5.	4.	4.	4.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
4.	4.	5.	5.	6.	6.	6.	6.	6.	5.
5.	4.	4.	3.	3.	3.	2.	2.	2.	3.
5.	9.	13.	18.	23.	28.	31.	34.	37.	39.
43.	56.	78.	112.	155.	203.	250.	291.	325.	354.
377.	397.	425.	483.	585.	741.	950.	1204.	1488.	1854.
2326.	2839.	3324.	3698.	3887.	3850.	3593.	3220.	2818.	2416.
2042.	1720.	1452.	1231.	1047.	895.	768.	659.	565.	481.
406.	377.	362.	348.	334.	321.	308.	296.	284.	273.
262.	252.	242.	232.	223.	214.	205.	197.	189.	182.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3887.	2983.	1184.	492.	59051.
CMS	110.	84.	34.	14.	1672.
INCHES		2.69	4.27	4.43	4.43
MM		68.24	108.34	112.56	112.56
AC-FT		1479.	2349.	2440.	2440.
THOUS CU M		1825.	2897.	3010.	3010.

HYDROGRAPH AT BTA 1 FOR PLAN 1, RTIO 6

6.	6.	5.	5.	5.	5.	5.	4.	4.	4.
4.	4.	4.	4.	4.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	4.
4.	4.	5.	5.	6.	6.	7.	7.	6.	6.
5.	4.	4.	3.	3.	3.	2.	2.	2.	3.
6.	9.	14.	19.	24.	29.	32.	35.	38.	40.
45.	57.	81.	116.	160.	210.	259.	301.	337.	366.
391.	411.	440.	500.	606.	768.	984.	1247.	1541.	1920.

2410.	2940.	3443.	3830.	4026.	3987.	3721.	3335.	2919.	2502.
2115.	1781.	1504.	1274.	1084.	927.	795.	683.	585.	498.
421.	391.	375.	360.	346.	332.	319.	306.	294.	283.
271.	261.	250.	240.	231.	222.	213.	204.	196.	188.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4026.	3090.	1226.	510.	61160.
CMS	114.	87.	35.	14.	1732.
INCHES		2.78	4.42	4.59	4.59
MM		70.68	112.21	116.58	116.58
AC-FT		1532.	2433.	2527.	2527.
THOUS CU M		1890.	3001.	3117.	3117.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

6.	6.	6.	5.	5.	5.	5.	5.	4.	4.
4.	4.	4.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	4.
4.	4.	5.	6.	6.	7.	7.	7.	6.	6.
5.	5.	4.	4.	3.	3.	3.	2.	2.	4.
6.	10.	14.	20.	25.	29.	33.	37.	39.	41.
46.	59.	84.	120.	166.	217.	267.	312.	348.	379.
404.	425.	455.	517.	627.	794.	1018.	1290.	1594.	1986.
2493.	3042.	3562.	3962.	4165.	4125.	3850.	3450.	3019.	2589.
2188.	1843.	1556.	1318.	1122.	959.	823.	707.	605.	516.
435.	404.	388.	373.	358.	344.	330.	317.	304.	292.
281.	270.	259.	249.	239.	229.	220.	211.	203.	195.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4165.	3197.	1269.	527.	63269.
CMS	118.	91.	36.	15.	1792.
INCHES		2.88	4.57	4.75	4.75
MM		73.11	116.08	120.60	120.60
AC-FT		1585.	2516.	2614.	2614.
THOUS CU M		1955.	3104.	3225.	3225.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

10.	10.	9.	9.	9.	8.	8.	8.	7.	7.
7.	7.	7.	6.	6.	6.	6.	6.	6.	6.
6.	5.	5.	5.	5.	5.	5.	5.	6.	6.
7.	7.	8.	9.	10.	11.	11.	11.	11.	10.
9.	8.	7.	6.	5.	5.	4.	4.	4.	6.
10.	16.	24.	33.	41.	49.	56.	61.	65.	69.
77.	99.	140.	200.	277.	362.	446.	520.	581.	631.
673.	708.	759.	862.	1045.	1324.	1697.	2150.	2657.	3310.
4154.	5070.	5936.	6604.	6942.	6875.	6416.	5750.	5032.	4315.
3647.	3071.	2593.	2197.	1870.	1598.	1371.	1178.	1009.	859.
726.	674.	647.	621.	597.	573.	550.	528.	507.	487.
468.	449.	431.	414.	398.	382.	367.	352.	338.	325.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6942.	5328.	2115.	879.	105449.
CMS	197.	151.	60.	25.	2986.
INCHES		4.80	7.62	7.91	7.91
MM		121.86	193.46	200.99	200.99
AC-FT		2642.	4194.	4357.	4357.
THOUS CU M		3259.	5173.	5375.	5375.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

20.	19.	18.	18.	17.	17.	16.	16.	15.	14.
14.	14.	13.	13.	12.	12.	12.	12.	11.	11.
11.	11.	11.	10.	10.	10.	10.	11.	11.	12.
13.	15.	17.	19.	21.	22.	23.	22.	21.	19.
17.	15.	14.	12.	11.	10.	9.	8.	8.	12.
20.	32.	48.	65.	83.	98.	111.	122.	130.	138.
154.	198.	279.	400.	553.	723.	891.	1039.	1161.	1263.
1347.	1416.	1517.	1724.	2091.	2648.	3394.	4299.	5314.	6620.
8309.	10139.	11873.	13207.	13883.	13749.	12832.	11500.	10065.	8629.
7294.	6142.	5186.	4395.	3739.	3196.	2742.	2355.	2018.	1719.
1451.	1348.	1294.	1243.	1193.	1146.	1101.	1057.	1015.	974.
936.	899.	863.	829.	796.	764.	734.	705.	677.	650.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13883.	10655.	4229.	1757.	210897.
CMS	393.	302.	120.	50.	5972.
INCHES		9.60	15.23	15.83	15.83
MM		243.72	386.93	401.99	401.99
AC-FT		5284.	8388.	8715.	8715.
THOUS CU M		6517.	10347.	10749.	10749.

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COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT I PLAN 1 RTIO I

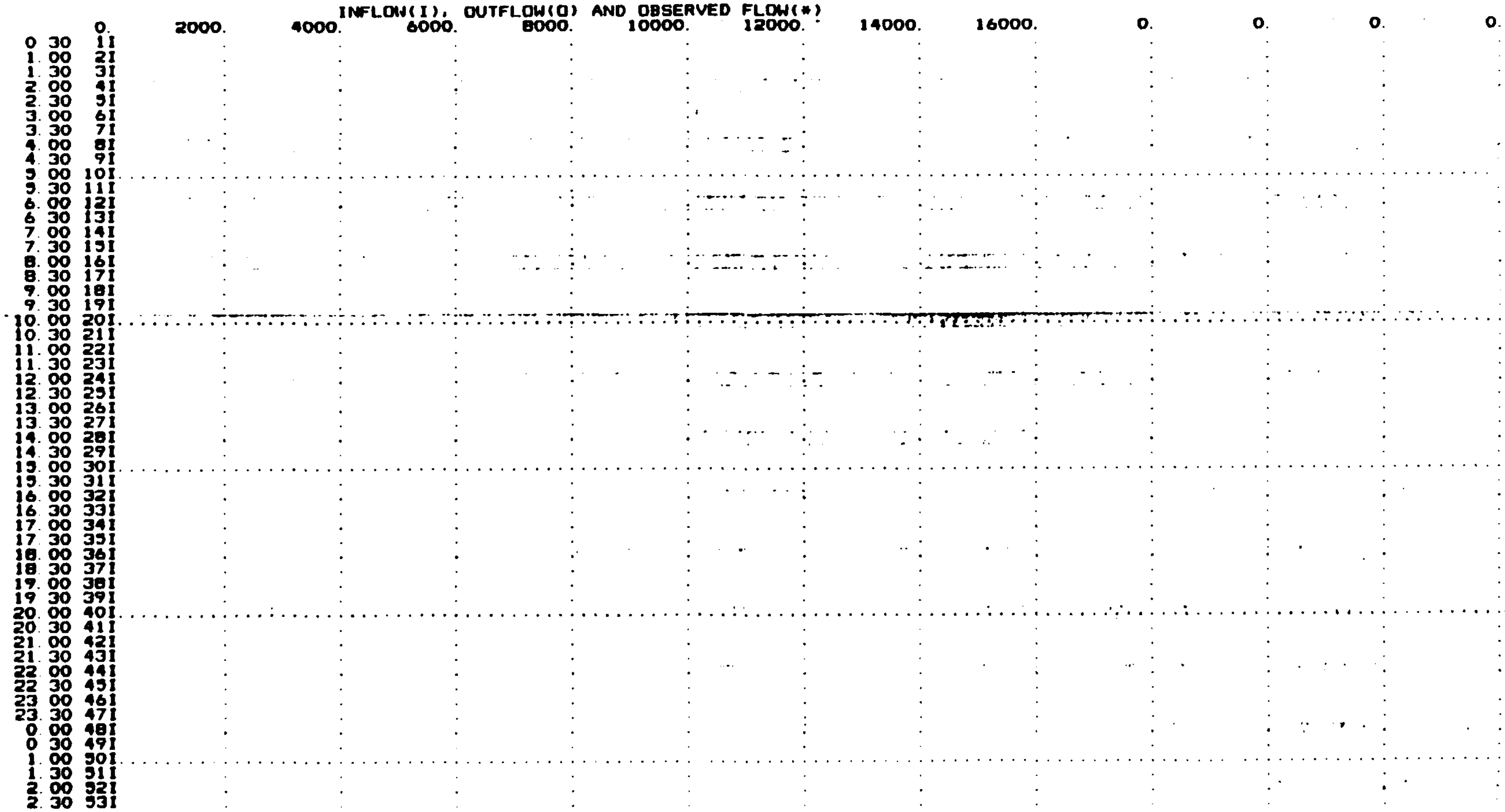
29.	28.	27.	26.	25.	24.	23.	22.	21.	20.
20.	19.	18.	18.	17.	16.	16.	15.	15.	15.
14.	14.	13.	13.	13.	12.	12.	12.	12.	13.
13.	13.	14.	15.	16.	17.	18.	18.	18.	17.
17.	16.	15.	14.	12.	12.	11.	10.	10.	13.
18.	28.	40.	56.	73.	91.	109.	126.	141.	155.
175.	215.	282.	381.	509.	662.	829.	1000.	1166.	1323.
1466.	1596.	1743.	1963.	2298.	2777.	3418.	4226.	5186.	6453.
8095.	9923.	11762.	13446.	14782.	15599.	15832.	15557.	14885.	13913.
12783.	11615.	10463.	9377.	8392.	7513.	6729.	6031.	5406.	4843.
4332.	3903.	3529.	3187.	2875.	2593.	2361.	2167.	1990.	1830.
1705.	1607.	1516.	1431.	1351.	1277.	1208.	1151.	1105.	1061.

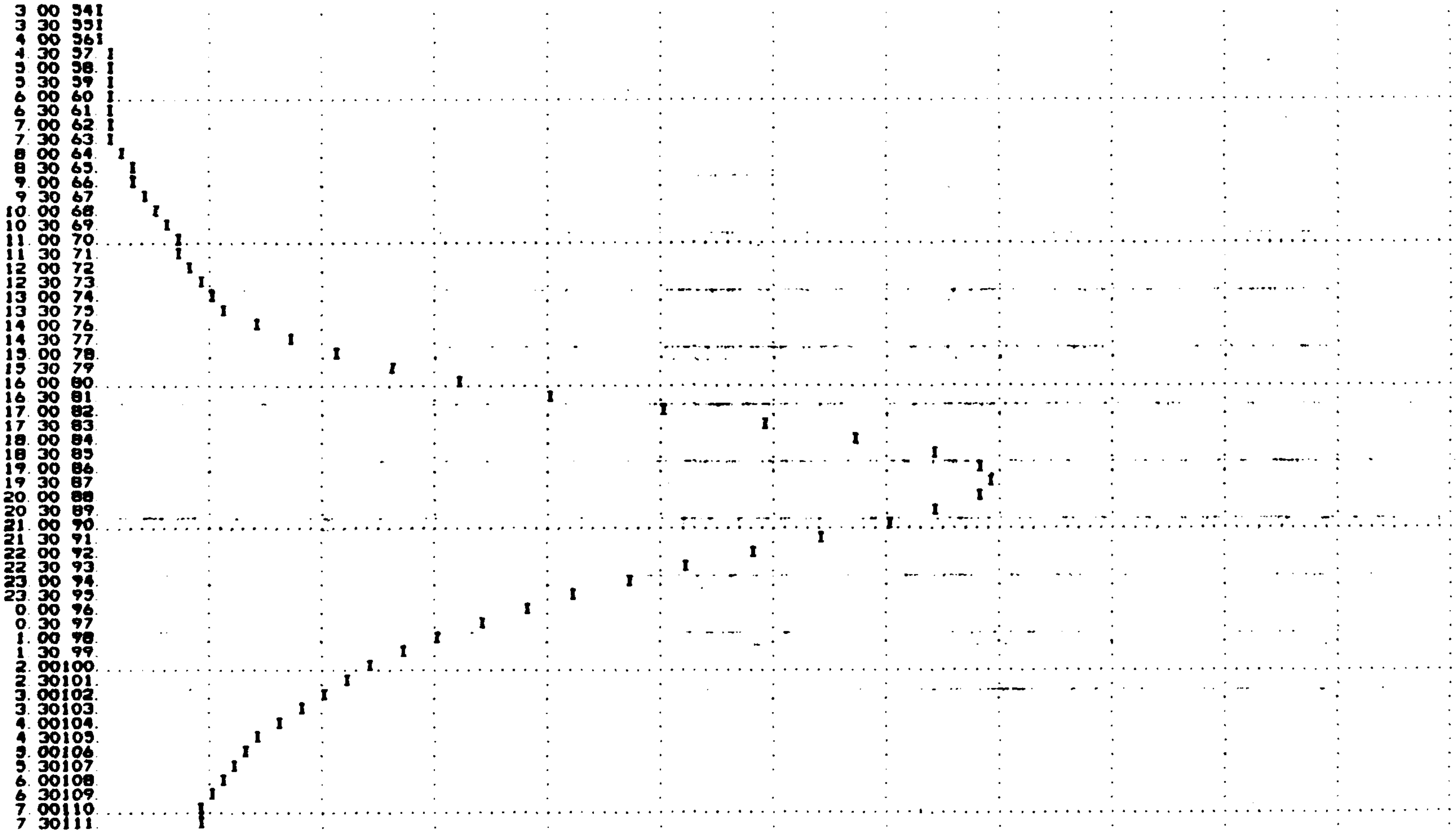
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15832.	13357.	6005.	2483.	297915.
CMS	448.	378.	170.	70.	8436.
INCHES		1.66	2.98	3.08	3.08
MM		42.08	75.67	78.21	78.21
AC-FT		6623.	11910.	12311.	12311.
THOUS CU M		8170.	14691.	15185.	15185.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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7 00110
7 30111

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*OVN*
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SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

36.	35.	33.	32.	31.	30.	29.	27.	26.	26.
25.	24.	23.	22.	21.	21.	20.	19.	19.	18.
18.	17.	17.	16.	16.	16.	15.	15.	15.	16.
16.	17.	18.	19.	20.	22.	22.	23.	22.	22.
21.	19.	18.	17.	16.	14.	13.	12.	13.	16.
23.	35.	51.	70.	92.	114.	136.	157.	176.	194.
219.	269.	353.	476.	636.	827.	1036.	1250.	1458.	1654.
1833.	1994.	2178.	2454.	2872.	3471.	4273.	5282.	6483.	8066.
10119.	12404.	14703.	18808.	18478.	19498.	19770.	17448.	18606.	17391.
15979.	14519.	13078.	11721.	10490.	9391.	8412.	7539.	6758.	6053.
5414.	4879.	4412.	3984.	3594.	3241.	2951.	2708.	2488.	2287.
2131.	2009.	1895.	1789.	1689.	1596.	1510.	1439.	1382.	1327.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19790.	16696.	7506.	3103.	372394.
CMS	560.	473.	213.	88.	10545.
INCHES		2.07	3.72	3.85	3.85
MM		52.60	94.59	97.77	97.77
AC-FT		8279.	14888.	15388.	15388.
THOUS CU M		10212.	18364.	18981.	18981.

OVF

STATION 1

```
                              INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.30  31
 2.00  41
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 3.00  61
 3.30  71
 4.00  81
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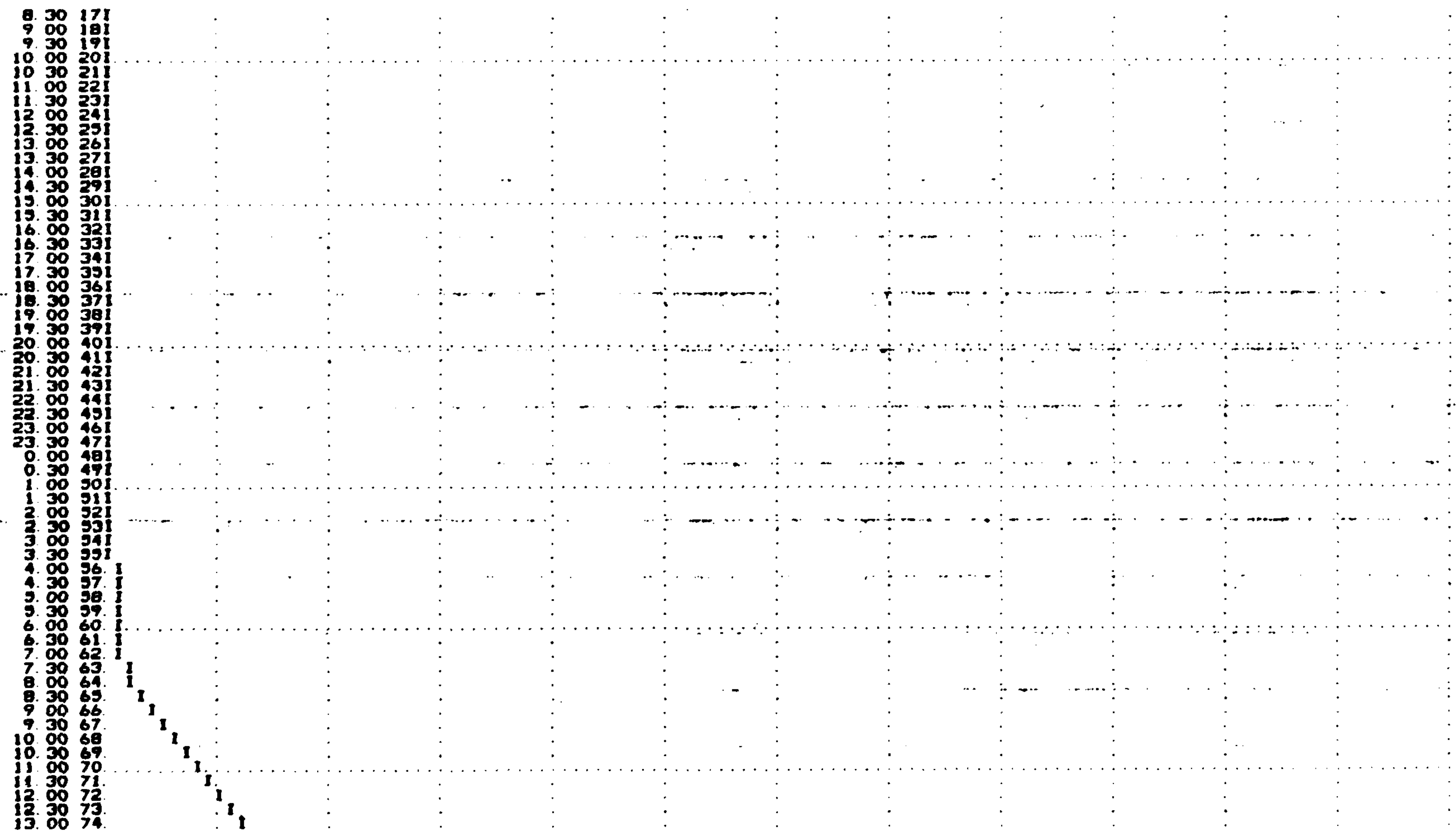
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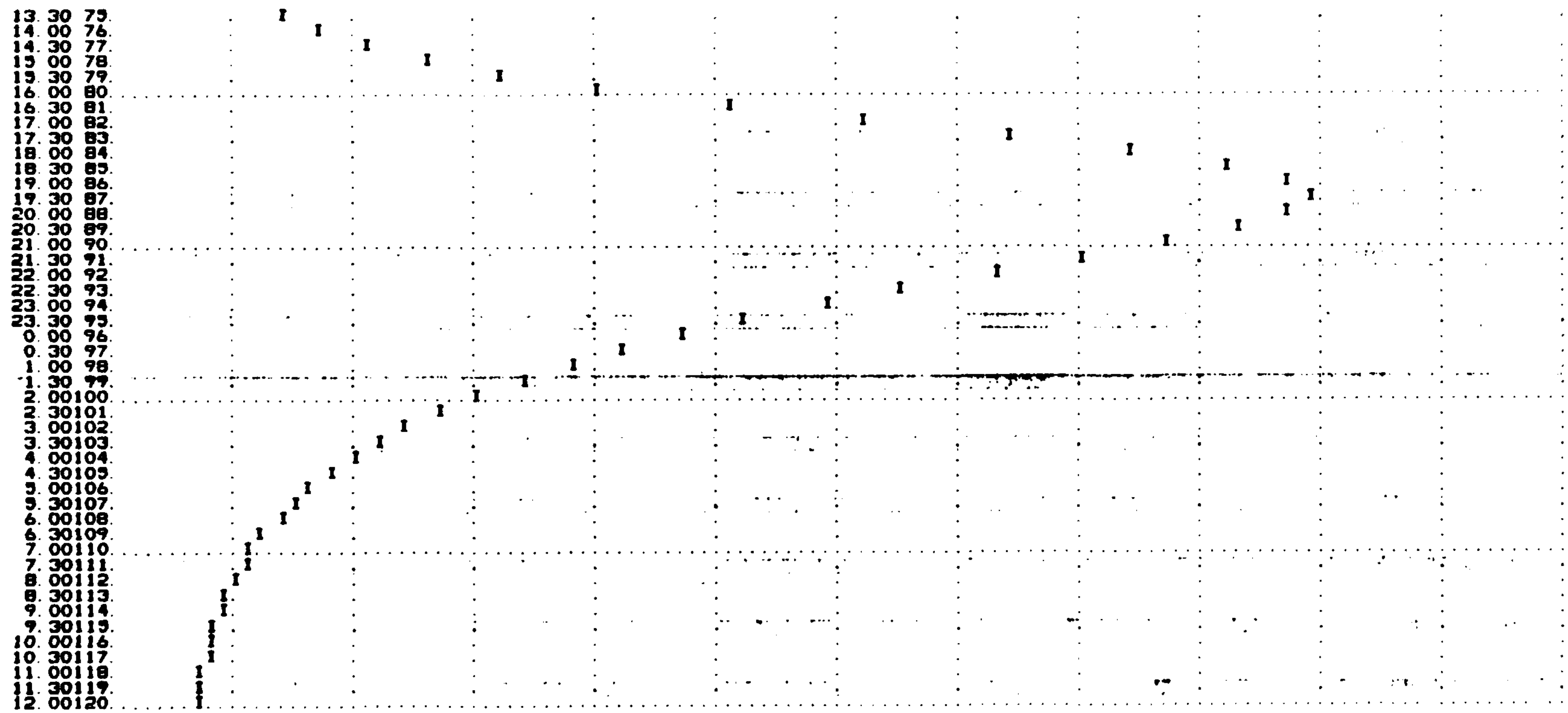

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

37.	36.	35.	33.	32.	31.	30.	29.	28.	27.
26.	25.	24.	23.	22.	21.	21.	20.	20.	19.
18.	18.	17.	17.	17.	16.	16.	16.	16.	16.
17.	18.	19.	20.	21.	22.	23.	24.	23.	23.
22.	20.	19.	18.	16.	15.	14.	13.	13.	16.

24.	36.	53.	73.	95.	119.	142.	164.	183.	201.
228.	280.	367.	495.	662.	860.	1077.	1300.	1516.	1720.
1906.	2074.	2266.	2552.	2987.	3609.	4444.	5493.	6742.	8389.
10523.	12900.	15291.	17480.	19217.	20278.	20581.	20224.	19350.	18087.
16618.	15099.	13601.	12190.	10910.	9767.	8748.	7840.	7028.	6295.
5631.	5075.	4588.	4143.	3738.	3371.	3069.	2817.	2587.	2379.
2217.	2089.	1971.	1860.	1757.	1660.	1570.	1496.	1437.	1380.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20581.	17364.	7806.	3227.	387290.
CMS	583.	492.	221.	91.	10967.
INCHES		2.15	3.87	4.00	4.00
MM		54.70	98.37	101.68	101.68
AC-FT		8610.	15484.	16004.	16004.
THOUS CU M		10621.	19099.	19740.	19740.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
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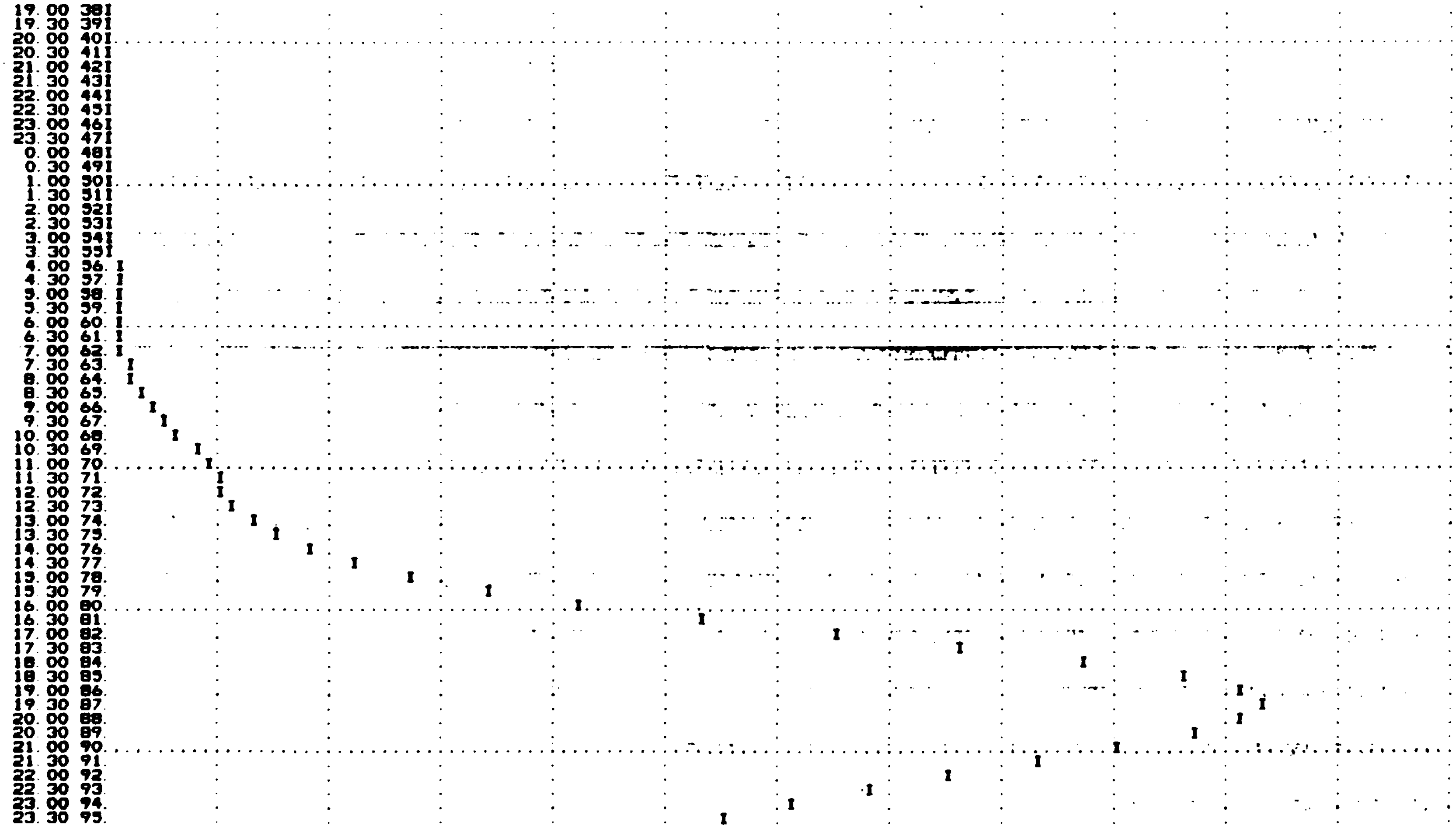
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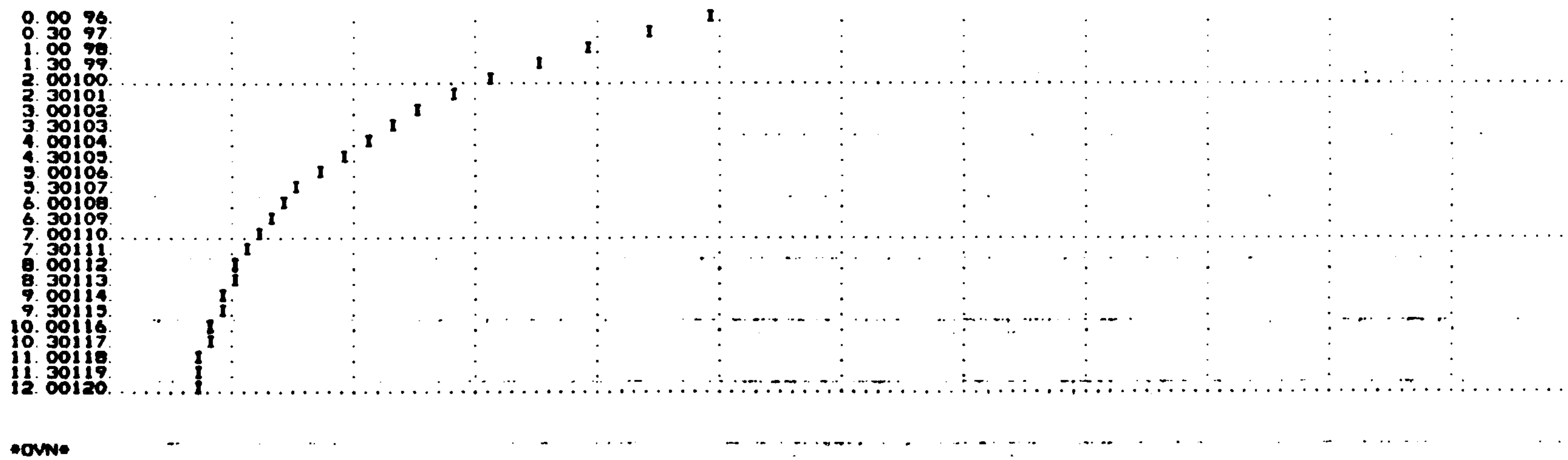

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

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27.	26.	25.	24.	23.	22.	22.	21.	20.	20.
19.	19.	18.	18.	17.	17.	17.	17.	17.	17.
17.	18.	19.	21.	22.	23.	24.	24.	24.	23.
22.	21.	20.	18.	17.	16.	14.	13.	14.	17.
25.	37.	55.	76.	99.	123.	147.	170.	191.	209.
236.	290.	381.	514.	687.	893.	1119.	1349.	1574.	1786.
1980.	2154.	2353.	2650.	3102.	3748.	4615.	5705.	7001.	8711.
10928.	13396.	13879.	18152.	19956.	21058.	21373.	21002.	20095.	18782.
17257.	15680.	14125.	12659.	11329.	10142.	9085.	8142.	7298.	6538.
5848.	5270.	4765.	4303.	3882.	3500.	3187.	2925.	2687.	2470.
2302.	2170.	2047.	1932.	1824.	1724.	1630.	1554.	1492.	1433.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	21373.	18032.	8107.	3352.	402185.
CMS	605.	511.	230.	95.	11389.
INCHES		2.24	4.02	4.16	4.16
MM		56.81	102.16	105.59	105.59
AC-FT		8942.	16079.	16619.	16619.
THOUS CU M		11029.	19833.	20499.	20499.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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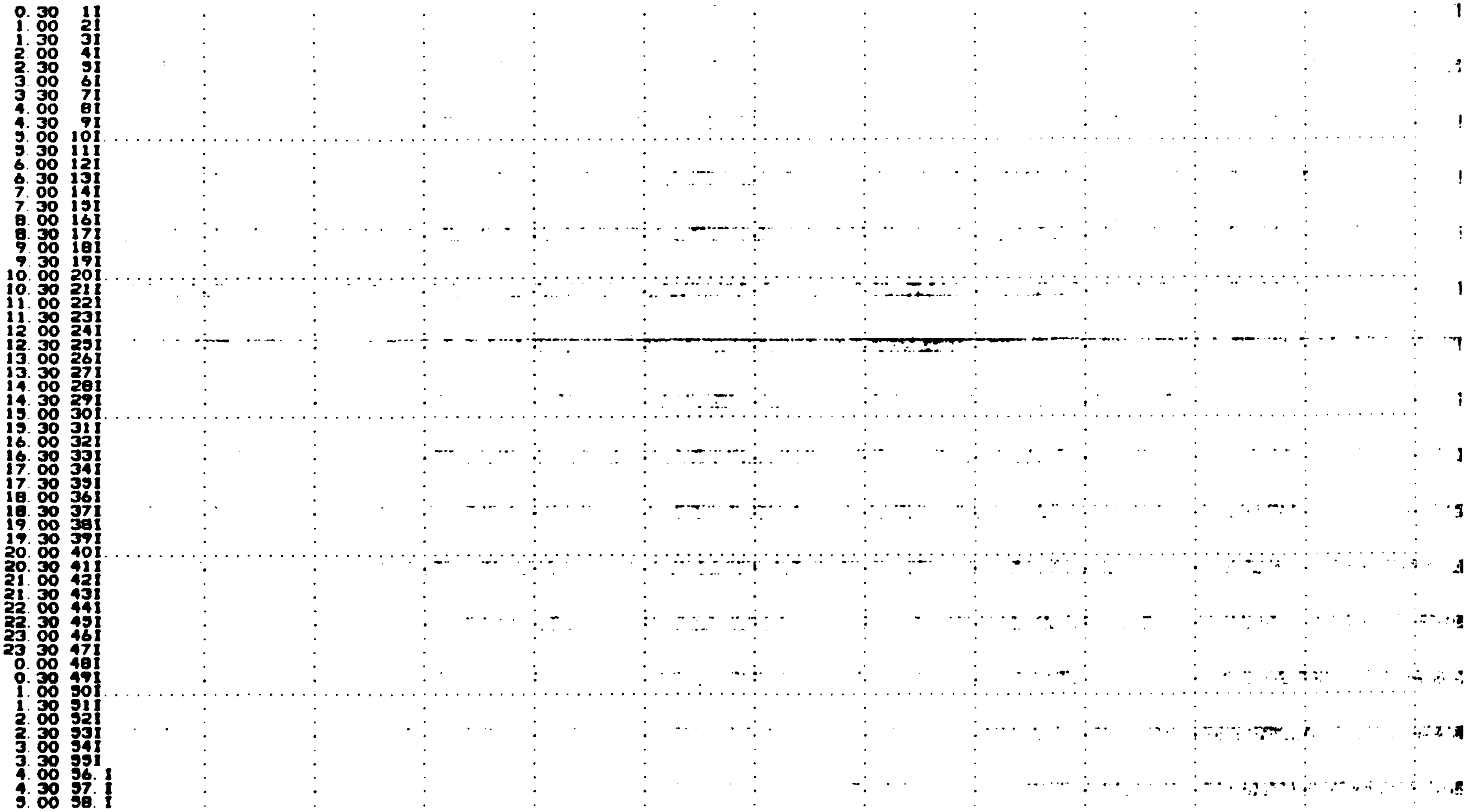
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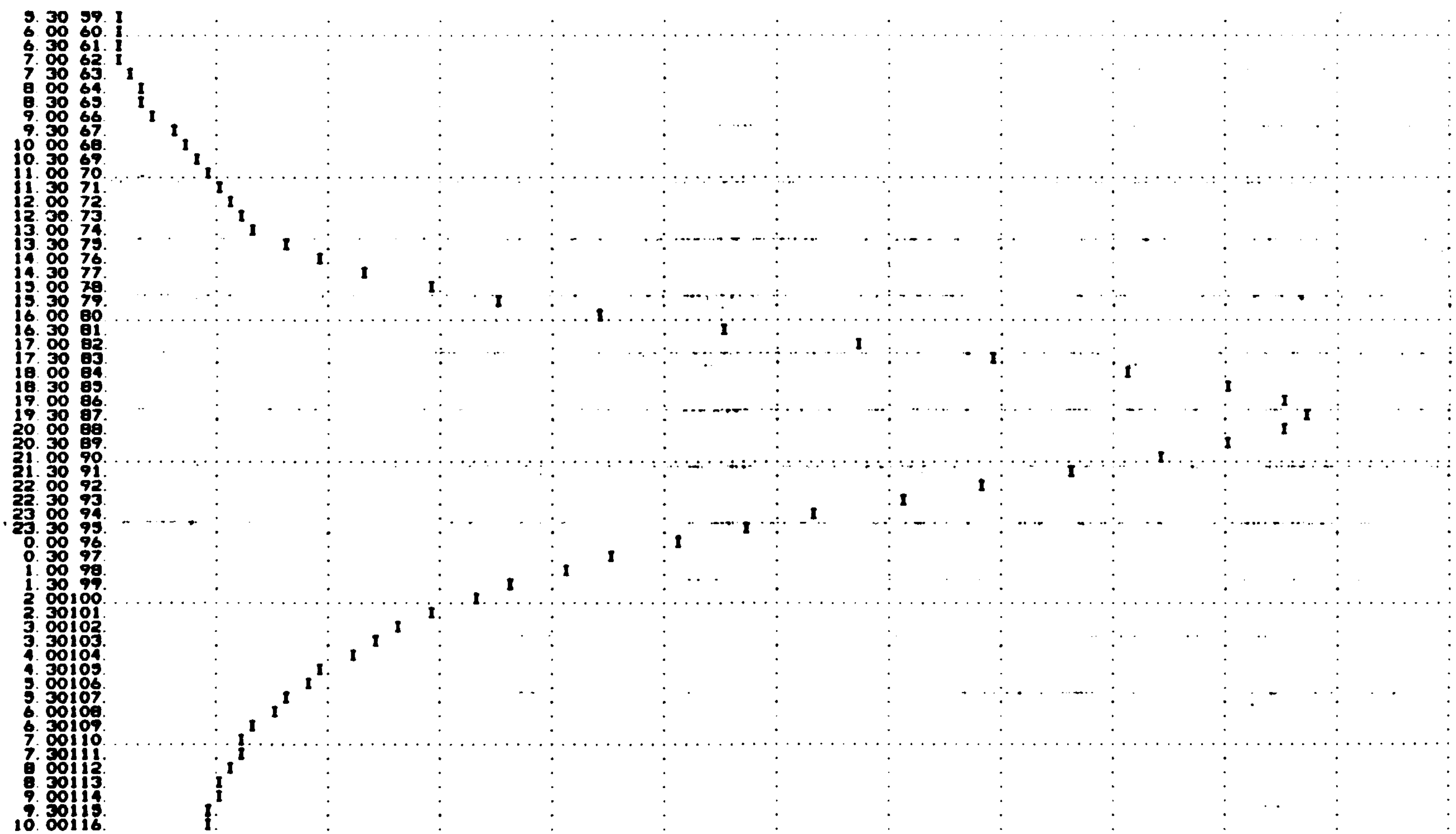
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10.00116.

```
 10.30117.       I   .        .        .        .        .        .        .        .        .        .        .
 11.00118.       I   .        .        .        .        .        .        .        .        .        .        .
 11.30119.      I    .        .        .        .        .        .        .        .        .        .        .
 12.00120.......I.......................................................................................................

*OVN*

                                   SUM OF 2 HYDROGRAPHS AT       1  PLAN 1  RTIO 5
          40.        39.        37.        36.        34.        33.        32.        31.        30.        29.
          28.        27.        26.        25.        24.        23.        22.        22.        21.        20.
          20.        19.        19.        18.        18.        17.        17.        17.        17.        18.
          18.        19.        20.        21.        23.        24.        25.        25.        25.        24.
          23.        22.        20.        19.        17.        16.        15.        14.        14.        18.
          26.        39.        57.        79.       103.       128.       153.       176.       198.       217.
         245.       301.       395.       533.       713.       926.      1160.      1399.      1632.      1852.
        2053.      2234.      2440.      2748.      3217.      3887.      4786.      5916.      7261.      9034.
       11333.     13892.     16467.     18825.     20695.     21838.     22165.     21780.     20839.     19478.
       17876.     16261.     14648.     13128.     11749.     10518.      9421.      8444.      7567.      6780.
        6064.      5465.      4941.      4462.      4026.      3630.      3305.      3033.      2786.      2562.
        2387.      2250.      2122.      2003.      1892.      1788.      1691.      1612.      1548.      1486.

                            PEAK     6-HOUR    24-HOUR    72-HOUR   TOTAL VOLUME
                  CFS      22165.     18700.     8407.      3476.      417081.
                  CMS        628.       530.      238.        98.       11810.
               INCHES                   2.32      4.17       4.31         4.31
                   MM                  58.91    105.94     109.50       109.50
                AC-FT                  9273.    16675.     17235.       17235.
           THOUS CU M                 11438.    20568.     21259.       21259.

*OVF*
                                   STATION      1

                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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  1.30  3I
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  4.30  9I
  5.00 10I..............................................................................................................
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  6.00 12I
  6.30 13I
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 10.00 20I..............................................................................................................
 10.30 21I
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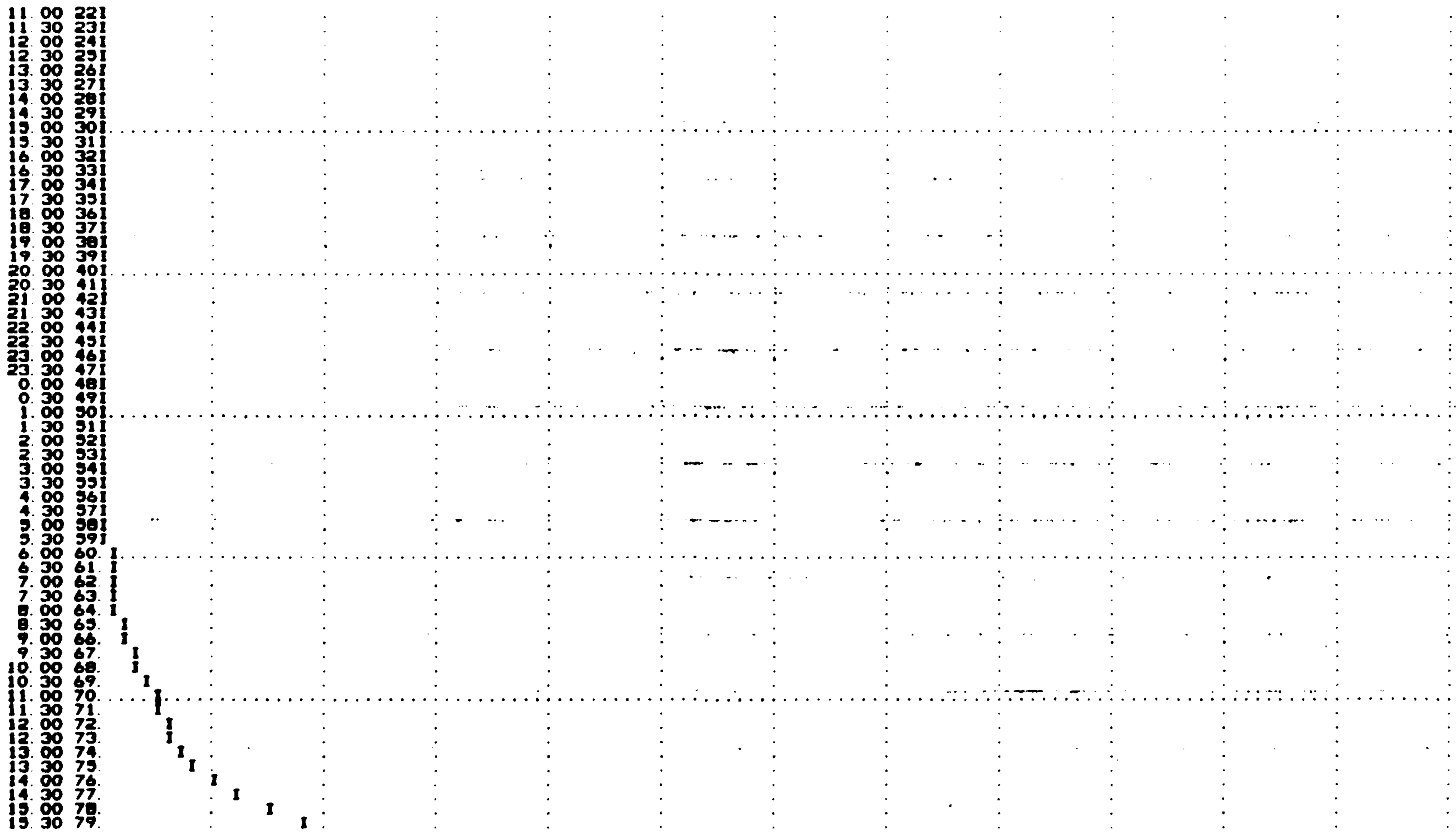
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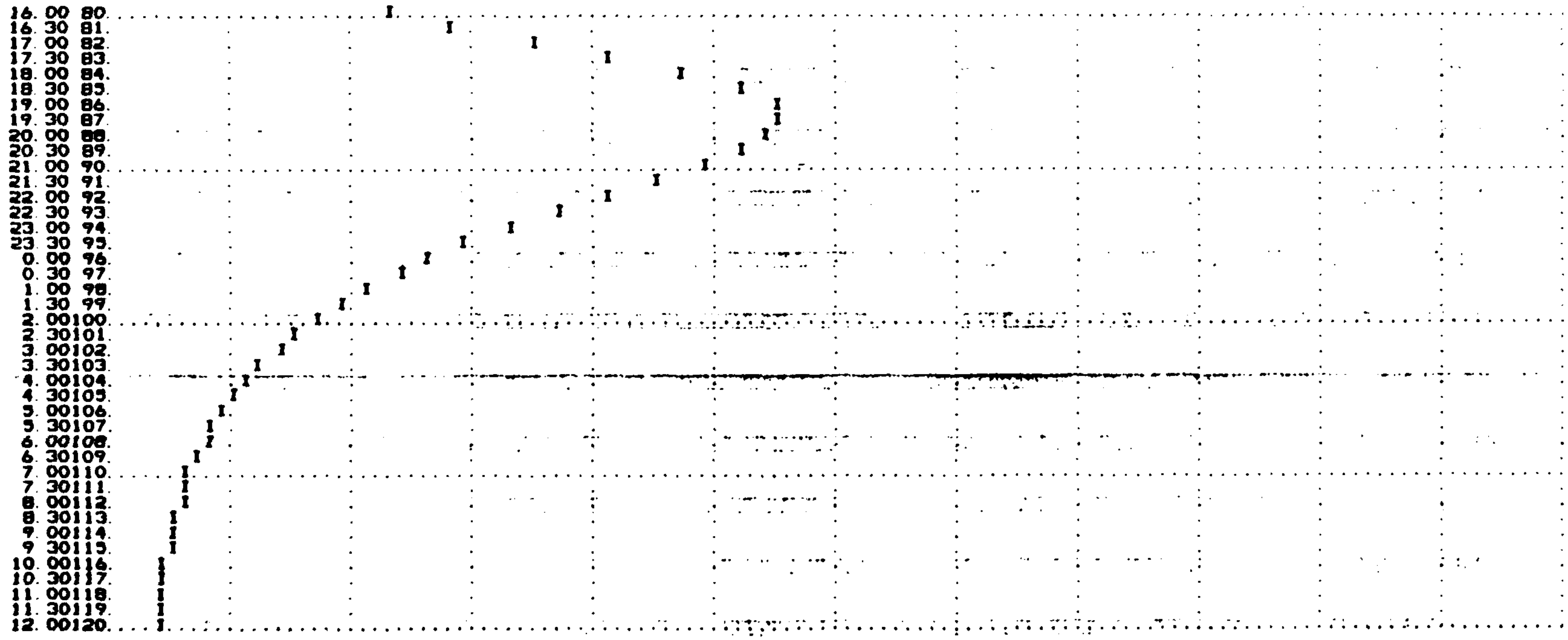

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

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29.	27.	26.	26.	25.	24.	23.	22.	22.	21.
21.	20.	19.	19.	18.	18.	18.	18.	18.	18.
19.	20.	21.	22.	24.	25.	26.	26.	26.	25.
24.	23.	21.	20.	18.	17.	16.	14.	15.	18.
27.	40.	59.	81.	107.	133.	158.	182.	205.	225.
254.	312.	410.	552.	738.	959.	1202.	1449.	1691.	1918.
2126.	2313.	2527.	2846.	3332.	4026.	4956.	6127.	7520.	9357.
11738.	14388.	17099.	19497.	21434.	22618.	22956.	22558.	21583.	20174.
18536.	16842.	15171.	13596.	12169.	10894.	9758.	8745.	7839.	7022.

6281.	5660.	5118.	4622.	4169.	3760.	3423.	3142.	2886.	2653.
2473.	2331.	2198.	2075.	1960.	1852.	1751.	1669.	1603.	1539.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	22956.	19368.	8707.	3600.	431977.
CMS	650.	548.	247.	102.	12232.
INCHES		2.40	4.32	4.46	4.46
MM		61.02	109.72	113.41	113.41
AC-FT		9604.	17270.	17850.	17850.
THOUS CU M		11846.	21302.	22018.	22018.

OVF

STATION 1

```
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 1.30   3I
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 8.30  17I
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 9.30  19I
10.00  20I
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11.30  23I
12.00  24I
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13.30  27I
14.00  28I
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15.00  30I
15.30  31I
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17.00  34I
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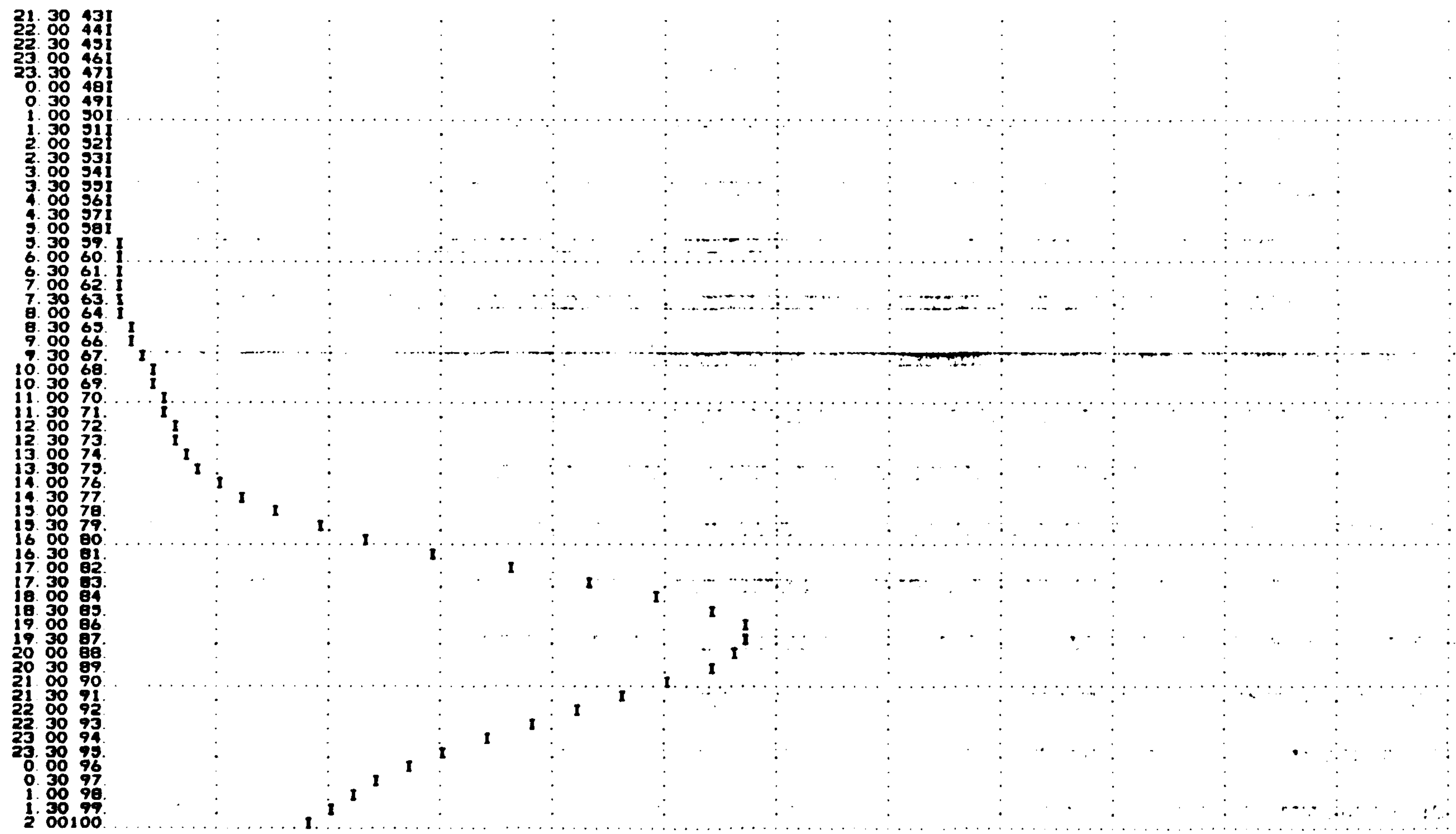

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10 00116.       I
10 30117.      I
11 00118.      I
11 30119.      I
12 00120.      I

*OVN*

                         SUM OF 2 HYDROGRAPHS AT       1  PLAN 1  RTIO 7
      43.      42.      40.      38.      37.      36.      34.      33.      32.      31.
      29.      28.      27.      26.      26.      25.      24.      23.      23.      22.
      21.      21.      20.      20.      19.      19.      18.      18.      18.      19.
      19.      20.      21.      23.      25.      26.      27.      27.      27.      26.
      25.      23.      22.      20.      19.      17.      16.      15.      15.      19.
      28.      42.      61.      84.     110.     137.     164.     189.     212.     232.
     163.     323.     424.     571.     764.     992.    1243.    1499.    1749.    1984.
    2200.    2393.    2614.    2944.    3446.    4165.    5127.    6338.    7779.    9679.
   12142.   14885.   17643.   20169.   22173.   23398.   23748.   23336.   22327.   20869.
   19175.   17422.   15694.   14065.   12588.   11269.   10094.    9047.    8109.    7264.
    6497.    5855.    5294.    4781.    4313.    3889.    3541.    3250.    2985.    2745.
    2558.    2411.    2274.    2146.    2027.    1916.    1812.    1727.    1658.    1592.

                    PEAK    6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
          CFS      23748.   20036.    9007.     3724.      446872.
          CMS        672.     567.     255.      105.       12654.
       INCHES                 2.49     4.47      4.62        4.62
           MM                63.12   113.51    117.32      117.32
        AC-FT                9935.   17866.    18466.       18466.
   THOUS CU M               12255.   22037.    22777.       22777.

*OVF*
                                   STATION     1

                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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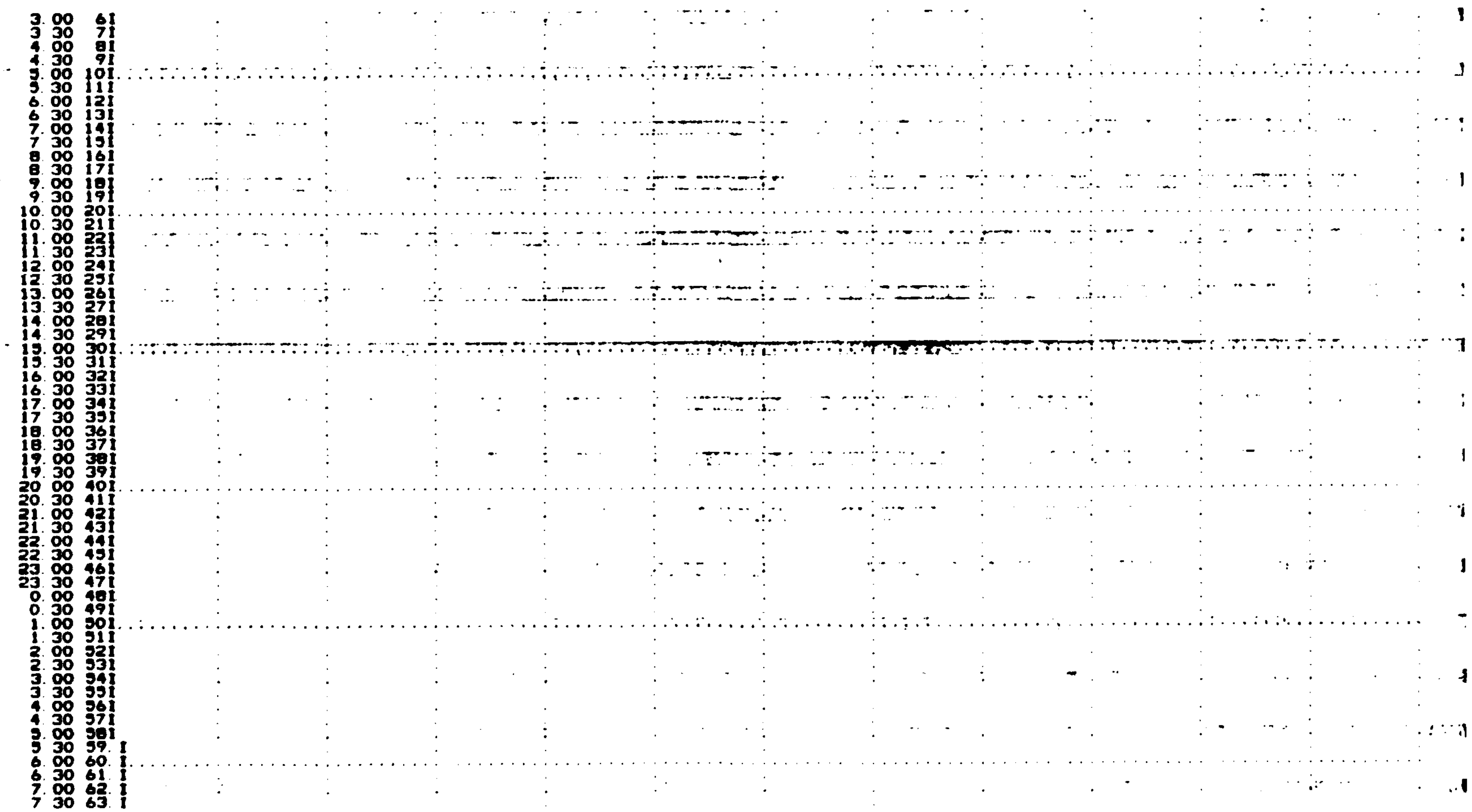
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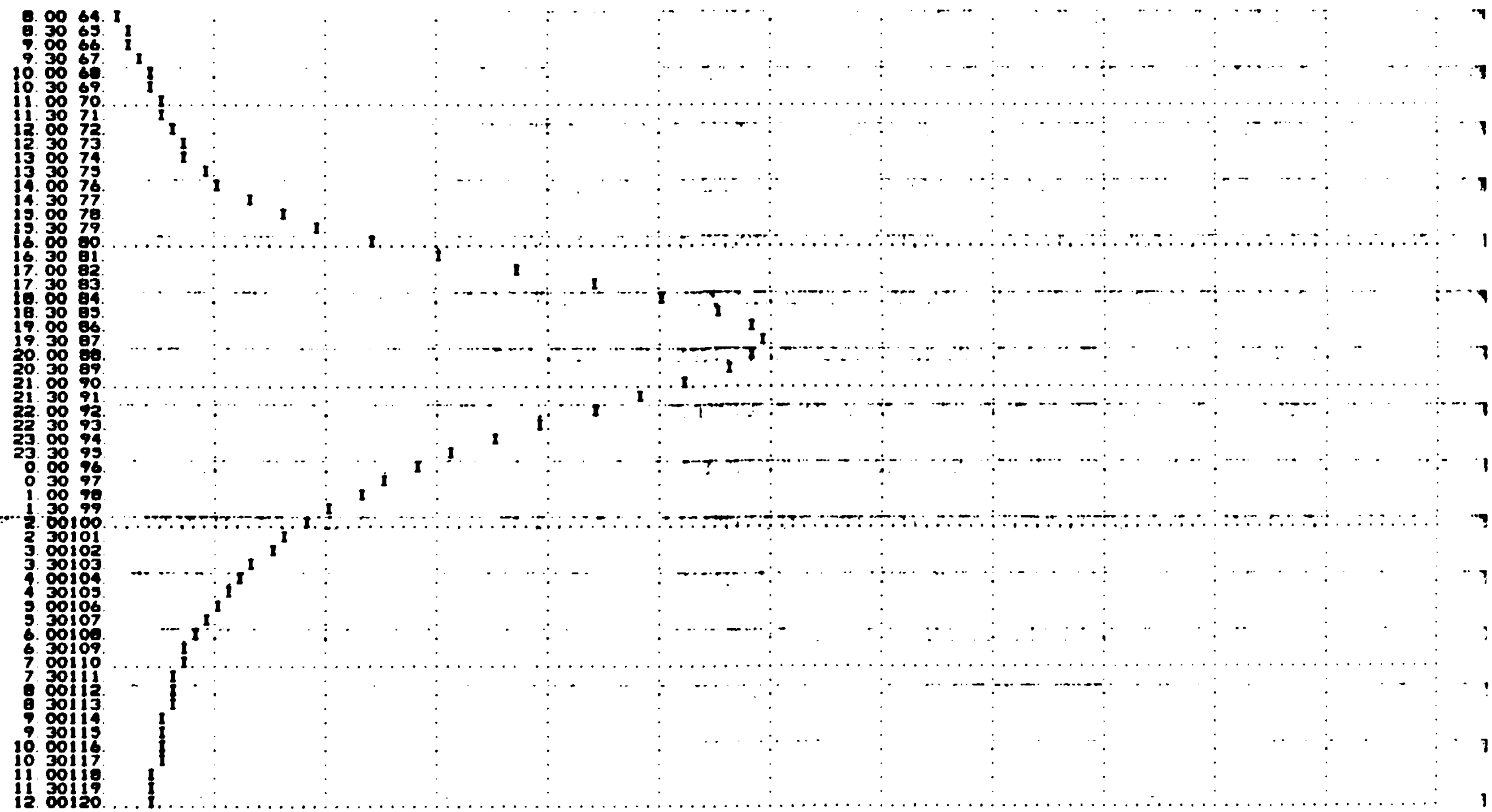
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OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

72.	69.	67.	64.	62.	59.	57.	55.	53.	51.
49.	47.	46.	44.	43.	41.	40.	39.	38.	37.
36.	35.	34.	33.	32.	31.	31.	31.	31.	31.
32.	34.	36.	38.	41.	43.	45.	45.	45.	43
41.	39.	36.	34.	31.	29.	27.	25.	25.	32.
46.	69.	101.	140.	184.	229.	273.	314.	353.	387.
438.	538.	706.	932.	1273.	1654.	2072.	2499.	2915.	3307.
3666.	3989.	4357.	4907.	5744.	6941.	8546.	10564.	12966.	16132.
20237.	24808.	29405.	33615.	36955.	38976.	39580.	38893.	37212.	34782.
31958.	29037.	26157.	23442.	20980.	18782.	16824.	15078.	13515.	12106.
10829.	9759.	8823.	7968.	7189.	6482.	5902.	5417.	4975.	4574.
4263.	4018.	3790.	3577.	3379.	3193.	3019.	2878.	2763.	2654.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	39580.	33393.	15012.	6207.	744787.
CMS	1121.	946.	425.	176.	21090.
INCHES		4.14	7.45	7.70	7.70
MM		105.20	189.18	195.53	195.53
AC-FT		16558.	29776.	30776.	30778.
THOUS CU M		20425.	36728.	37962.	37962.

OVF

STATION 1

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                        INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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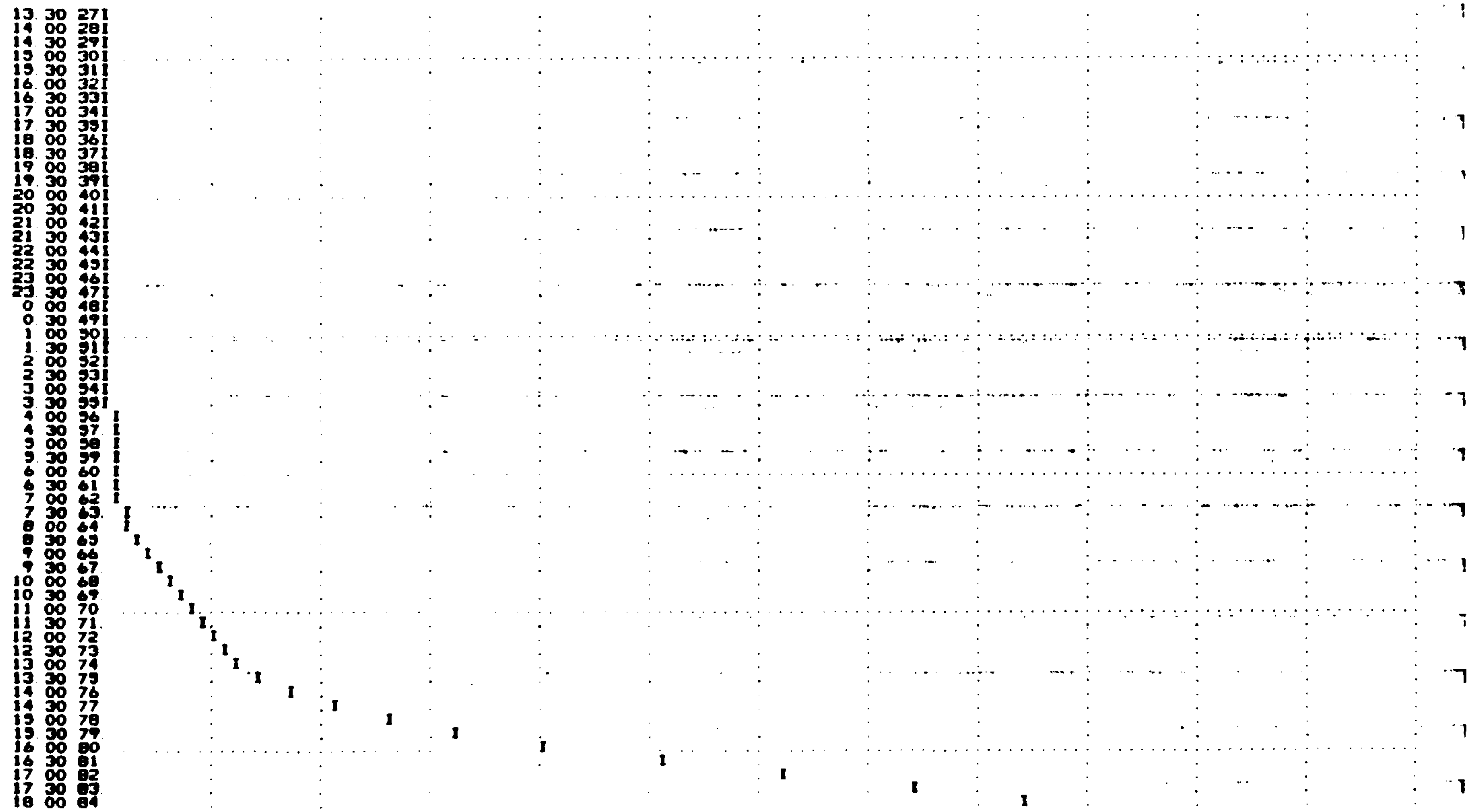
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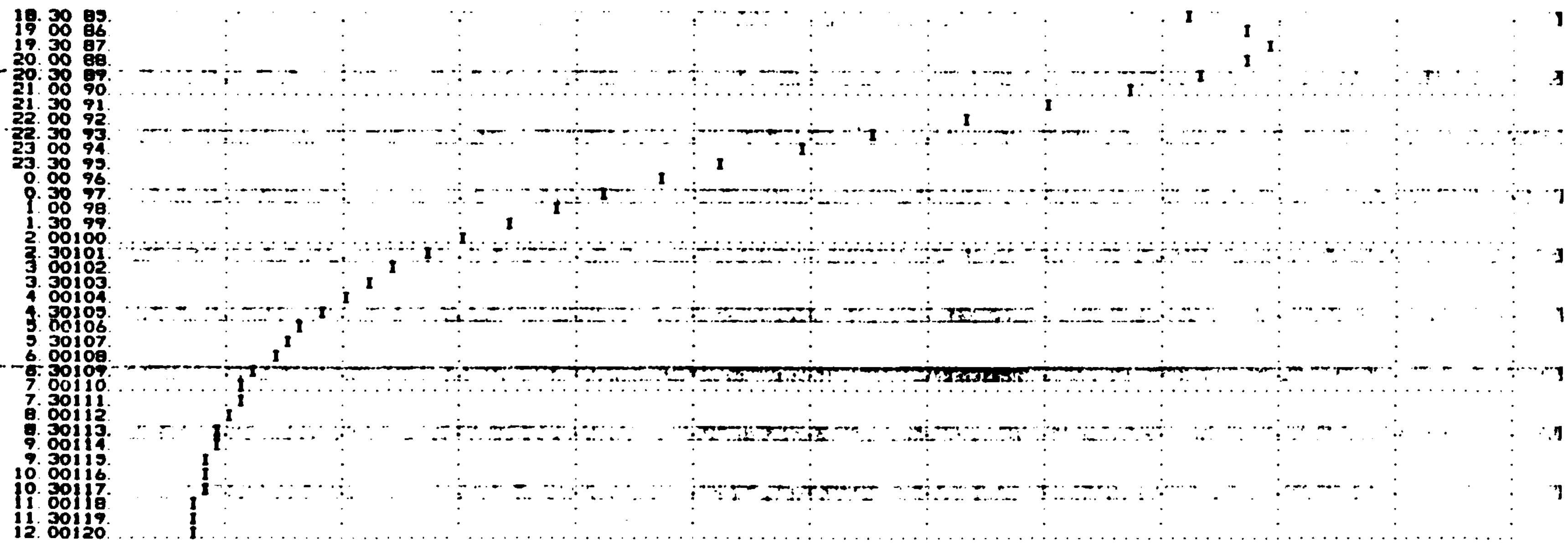

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

144.	138.	133.	128.	123.	118.	114.	110.	106.	102.
98.	95.	91.	88.	85.	82.	80.	77.	75.	73.
71.	69.	67.	65.	64.	62.	61.	61.	62.	63.
64.	67.	72.	77.	82.	86.	89.	90.	89.	87.
83.	78.	73.	68.	62.	58.	53.	50.	50.	63.
92.	138.	202.	280.	367.	457.	549.	629.	706.	779.
876.	1075.	1412.	1904.	2546.	3308.	4144.	4998.	5830.	6615.
7332.	7978.	8714.	9815.	11488.	13883.	17091.	21128.	25931.	32264.
40475.	49615.	58811.	67230.	73911.	77993.	79159.	77785.	74425.	69564.
63916.	58075.	52313.	46884.	41961.	37564.	33647.	30156.	27031.	24213.
21658.	19517.	17647.	15936.	14377.	12964.	11804.	10834.	9951.	9148.
8526.	8036.	7580.	7154.	6757.	6386.	6039.	5756.	5527.	5307.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	79159.	66786.	30024.	12413	1489574

```
                CMS    2242.    1891.     850.     352.      42180.
             INCHES              8.28    14.90    15.40      15.40
                 MM            210.40   378.35   391.06     391.06
              AC-FT             33117.   59552.   61553.     61553.
         THOUS CU M             40849.   73457.   75924.     75924.

*OVF*
                              STATION      1

                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.   10000.   20000.   30000.   40000.   50000.   60000.   70000.   80000.     0.     0.     0.     0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I.......................................................................................................
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I.......................................................................................................
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I.......................................................................................................
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I.......................................................................................................
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23.30 47I
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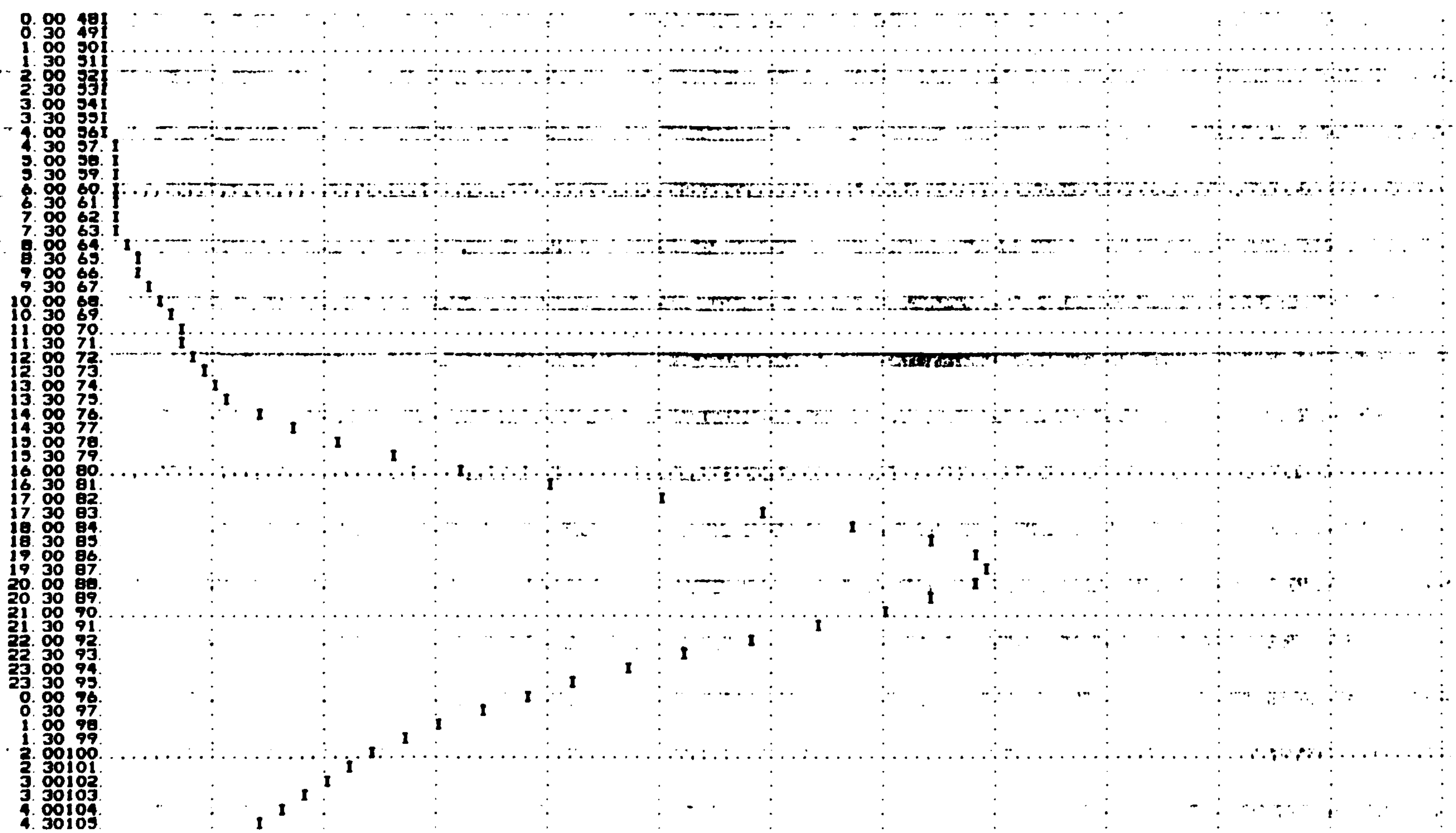
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23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.

```
 5.00106.        I
 5.30107.       I
 6.00108.      I
 6.30109.     I
 7.00110.    I
 7.30111.    I
 8.00112.    I
 8.30113.    I
 9.00114.   I
 9.30115.   I
10.00116.  I
10.30117.  I
11.00118.  I
11.30119.  I
12.00120. I

*OVN*

      **********     **********     **********     **********     **********
                          SUB-AREA RUNOFF COMPUTATION

            INFLOW HYDROGRAPH - SUBWATERSHED NO. 7 (OTSEGO LAKE)
                 ISTAQ   ICOMP   IECON   ITAPE   JPLT    JPRT   INAME  ISTAGE   IAUTO
                   1       0       0       0       0       0      1      0        0

                                   HYDROGRAPH DATA
           IHYDG   IUHG   TAREA   SNAP   TRSDA   TRSPC   RATIO   ISNOW   ISAME   LOCAL
             1       1     6.38   0.00    6.38    0.00   0.000     0       1       0

                                     PRECIP DATA
                 SPFE    PMS     R6      R12      R24      R48      R72     R96
                 0.00   19.30   86.00   100.00   112.00   119.00    0.00    0.00
 TRSPC COMPUTED BY THE PROGRAM IS 0.800

                                      LOSS DATA
        LROPT  STRKR  DLTKR  RTIOL  ERAIN  STRKS  RTIOK  STRTL  CNSTL  ALSMX  RTIMP
          0     0.00   0.00   1.00   0.00   0.00   1.00   0.00   0.00   0.00   1.00

                              UNIT HYDROGRAPH DATA
                         TP=  0.00    CP=0.63    NTA=  0

                                   RECESSION DATA
                    STRTQ=   -2.00    QRCSN=   -0.10    RTIOR= 1.50

 TC INCREASED TO TRHR OF  0.50
 R INCREASED TO MINIMUM OF 0.5
 CLARK DID NOT CONVERGE TO GIVEN SNYDER COEFFICIENTS
 APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 1.00 AND R= 0.50 INTERVALS

           UNIT HYDROGRAPH  2 END-OF-PERIOD ORDINATES, LAG=   0.39 HOURS, CP= 0.50  VOL= 1.00
       4115.     4115.

                                            END-OF-PERIOD FLOW
   0
 MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS   COMP Q   MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS    COMP Q
```

1.01	0.30	1	0.00	0.00	0.00	28.		1.02	6.30	61	0.18	0.18	0.00	996.
1.01	1.00	2	0.00	0.00	0.00	44.		1.02	7.00	62	0.18	0.18	0.00	1484.
1.01	1.30	3	0.00	0.00	0.00	43.		1.02	7.30	63	0.18	0.18	0.00	1484.
1.01	2.00	4	0.00	0.00	0.00	43.		1.02	8.00	64	0.18	0.18	0.00	1483.
1.01	2.30	5	0.00	0.00	0.00	42.		1.02	8.30	65	0.18	0.18	0.00	1483.
1.01	3.00	6	0.00	0.00	0.00	42.		1.02	9.00	66	0.18	0.18	0.00	1483.
1.01	3.30	7	0.00	0.00	0.00	41.		1.02	9.30	67	0.18	0.18	0.00	1483.
1.01	4.00	8	0.00	0.00	0.00	41.		1.02	10.00	68	0.18	0.18	0.00	1483.
1.01	4.30	9	0.00	0.00	0.00	41.		1.02	10.30	69	0.18	0.18	0.00	1483.
1.01	5.00	10	0.00	0.00	0.00	40.		1.02	11.00	70	0.18	0.18	0.00	1483.
1.01	5.30	11	0.00	0.00	0.00	40.		1.02	11.30	71	0.18	0.18	0.00	1483.
1.01	6.00	12	0.00	0.00	0.00	40.		1.02	12.00	72	0.18	0.18	0.00	1483.
1.01	6.30	13	0.01	0.01	0.00	70.		1.02	12.30	73	0.66	0.66	0.00	3474.
1.01	7.00	14	0.01	0.01	0.00	100.		1.02	13.00	74	0.66	0.66	0.00	5465.
1.01	7.30	15	0.01	0.01	0.00	100.		1.02	13.30	75	0.80	0.80	0.00	6011.
1.01	8.00	16	0.01	0.01	0.00	99.		1.02	14.00	76	0.80	0.80	0.00	6558.
1.01	8.30	17	0.01	0.01	0.00	99.		1.02	14.30	77	1.00	1.00	0.00	7377.
1.01	9.00	18	0.01	0.01	0.00	99.		1.02	15.00	78	1.00	1.00	0.00	8197.
1.01	9.30	19	0.01	0.01	0.00	99.		1.02	15.30	79	1.21	1.21	0.00	9082.
1.01	10.00	20	0.01	0.01	0.00	98.		1.02	16.00	80	3.83	3.83	0.00	20764.
1.01	10.30	21	0.01	0.01	0.00	98.		1.02	16.30	81	0.93	0.93	0.00	19606.
1.01	11.00	22	0.01	0.01	0.00	98.		1.02	17.00	82	0.93	0.93	0.00	7650.
1.01	11.30	23	0.01	0.01	0.00	98.		1.02	17.30	83	0.73	0.73	0.00	6831.
1.01	12.00	24	0.01	0.01	0.00	97.		1.02	18.00	84	0.73	0.73	0.00	6011.
1.01	12.30	25	0.04	0.04	0.00	222.		1.02	18.30	85	0.09	0.09	0.00	3387.
1.01	13.00	26	0.04	0.04	0.00	346.		1.02	19.00	86	0.09	0.09	0.00	2035.
1.01	13.30	27	0.05	0.05	0.00	380.		1.02	19.30	87	0.09	0.09	0.00	1954.
1.01	14.00	28	0.05	0.05	0.00	414.		1.02	20.00	88	0.09	0.09	0.00	1877.
1.01	14.30	29	0.06	0.06	0.00	465.		1.02	20.30	89	0.09	0.09	0.00	1802.
1.01	15.00	30	0.06	0.06	0.00	516.		1.02	21.00	90	0.09	0.09	0.00	1730.
1.01	15.30	31	0.08	0.08	0.00	571.		1.02	21.30	91	0.09	0.09	0.00	1662.
1.01	16.00	32	0.24	0.24	0.00	1301.		1.02	22.00	92	0.09	0.09	0.00	1596.
1.01	16.30	33	0.06	0.06	0.00	1229.		1.02	22.30	93	0.09	0.09	0.00	1532.
1.01	17.00	34	0.06	0.06	0.00	481.		1.02	23.00	94	0.09	0.09	0.00	1471.
1.01	17.30	35	0.05	0.05	0.00	430.		1.02	23.30	95	0.09	0.09	0.00	1413.
1.01	18.00	36	0.05	0.05	0.00	379.		1.03	0.00	96	0.09	0.09	0.00	1357.
1.01	18.30	37	0.01	0.01	0.00	215.		1.03	0.30	97	0.00	0.00	0.00	1303.
1.01	19.00	38	0.01	0.01	0.00	128.		1.03	1.00	98	0.00	0.00	0.00	1251.
1.01	19.30	39	0.01	0.01	0.00	123.		1.03	1.30	99	0.00	0.00	0.00	1201.
1.01	20.00	40	0.01	0.01	0.00	118.		1.03	2.00	100	0.00	0.00	0.00	1154.
1.01	20.30	41	0.01	0.01	0.00	113.		1.03	2.30	101	0.00	0.00	0.00	1108.
1.01	21.00	42	0.01	0.01	0.00	109.		1.03	3.00	102	0.00	0.00	0.00	1064.
1.01	21.30	43	0.01	0.01	0.00	104.		1.03	3.30	103	0.00	0.00	0.00	1022.
1.01	22.00	44	0.01	0.01	0.00	100.		1.03	4.00	104	0.00	0.00	0.00	981.
1.01	22.30	45	0.01	0.01	0.00	96.		1.03	4.30	105	0.00	0.00	0.00	942.
1.01	23.00	46	0.01	0.01	0.00	92.		1.03	5.00	106	0.00	0.00	0.00	905.
1.01	23.30	47	0.01	0.01	0.00	89.		1.03	5.30	107	0.00	0.00	0.00	869.
1.02	0.00	48	0.01	0.01	0.00	85.		1.03	6.00	108	0.00	0.00	0.00	834.
1.02	0.30	49	0.06	0.06	0.00	280.		1.03	6.30	109	0.00	0.00	0.00	801.
1.02	1.00	50	0.06	0.06	0.00	510.		1.03	7.00	110	0.00	0.00	0.00	769.
1.02	1.30	51	0.06	0.06	0.00	510.		1.03	7.30	111	0.00	0.00	0.00	739.
1.02	2.00	52	0.06	0.06	0.00	510.		1.03	8.00	112	0.00	0.00	0.00	709.
1.02	2.30	53	0.06	0.06	0.00	510.		1.03	8.30	113	0.00	0.00	0.00	681.
1.02	3.00	54	0.06	0.06	0.00	510.		1.03	9.00	114	0.00	0.00	0.00	654.
1.02	3.30	55	0.06	0.06	0.00	510.		1.03	9.30	115	0.00	0.00	0.00	628.
1.02	4.00	56	0.06	0.06	0.00	510.		1.03	10.00	116	0.00	0.00	0.00	603.
1.02	4.30	57	0.06	0.06	0.00	510.		1.03	10.30	117	0.00	0.00	0.00	579.
1.02	5.00	58	0.06	0.06	0.00	510.		1.03	11.00	118	0.00	0.00	0.00	556.

```
1.02  5.30   59  0.06  0.06  0.00    509.      1.03  11.30   119  0.00  0.00  0.00     534.
1.02  6.00   60  0.06  0.06  0.00    509.      1.03  12.00   120  0.00  0.00  0.00     513.
                                                             SUM  18.37  18.37   0.00   182187.
                                                                 ( 467.)( 467.)(   0.)( 5158.96)
```

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20764.	8915.	3306.	1516.	181911.
CMS	588.	252.	94.	43.	5151.
INCHES		13.00	19.28	22.10	22.10
MM		330.17	489.75	561.41	561.41
AC-FT		4421.	6557.	7517.	7517.
THOUS CU M		5453.	8088.	9272.	9272.

OVF

STATION 1

```
                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.     4000.     8000.    12000.    16000.    20000.    24000.      0.       0.       0.        0.       0.      0.
                                                                                                    PRECIP(L) AND EXCESS(X)
          0.        0.        0.        0.        0.        0.        0.      0.       4.       3.        2.       1.      0.
 0.30  11I                                                                                                                  L
 1.00  21I                                                                                                                  L
 1.30  31I                                                                                                                  L
 2.00  41I                                                                                                                  L
 2.30  51I                                                                                                                  L
 3.00  61I                                                                                                                  L
 3.30  71I                                                                                                                  L
 4.00  81I                                                                                                                  L
 4.30  91I                                                                                                                  L
 5.00 101I......................................................................................................................L
 5.30 111I                                                                                                                  L
 6.00 121I                                                                                                                  L
 6.30 131I                                                                                                                  L
 7.00 141I                                                                                                                  L
 7.30 151I                                                                                                                  L
 8.00 161I                                                                                                                  L
 8.30 171I                                                                                                                  L
 9.00 181I                                                                                                                  L
 9.30 191I                                                                                                                  L
10.00 201I......................................................................................................................L
10.30 211I                                                                                                                  L
11.00 221I                                                                                                                  L
11.30 231I                                                                                                                  L
12.00 241I                                                                                                                  L
12.30  25 I                                                                                                                 L
13.00  26. I                                                                                                                L
13.30  27. I                                                                                                                L
14.00  28. I                                                                                                                L
14.30  29. I                                                                                                               LX
15.00  30. I...................................................................................................................LX
15.30  31. I                                                                                                               LX
16.00  32.    I                                                                                                           LXX
16.30  33     I                                                                                                            LX
17.00  34. I                                                                                                               LX
17.30  35. I                                                                                                                L
18.00  36. I                                                                                                                L
18.30  37. I                                                                                                                L
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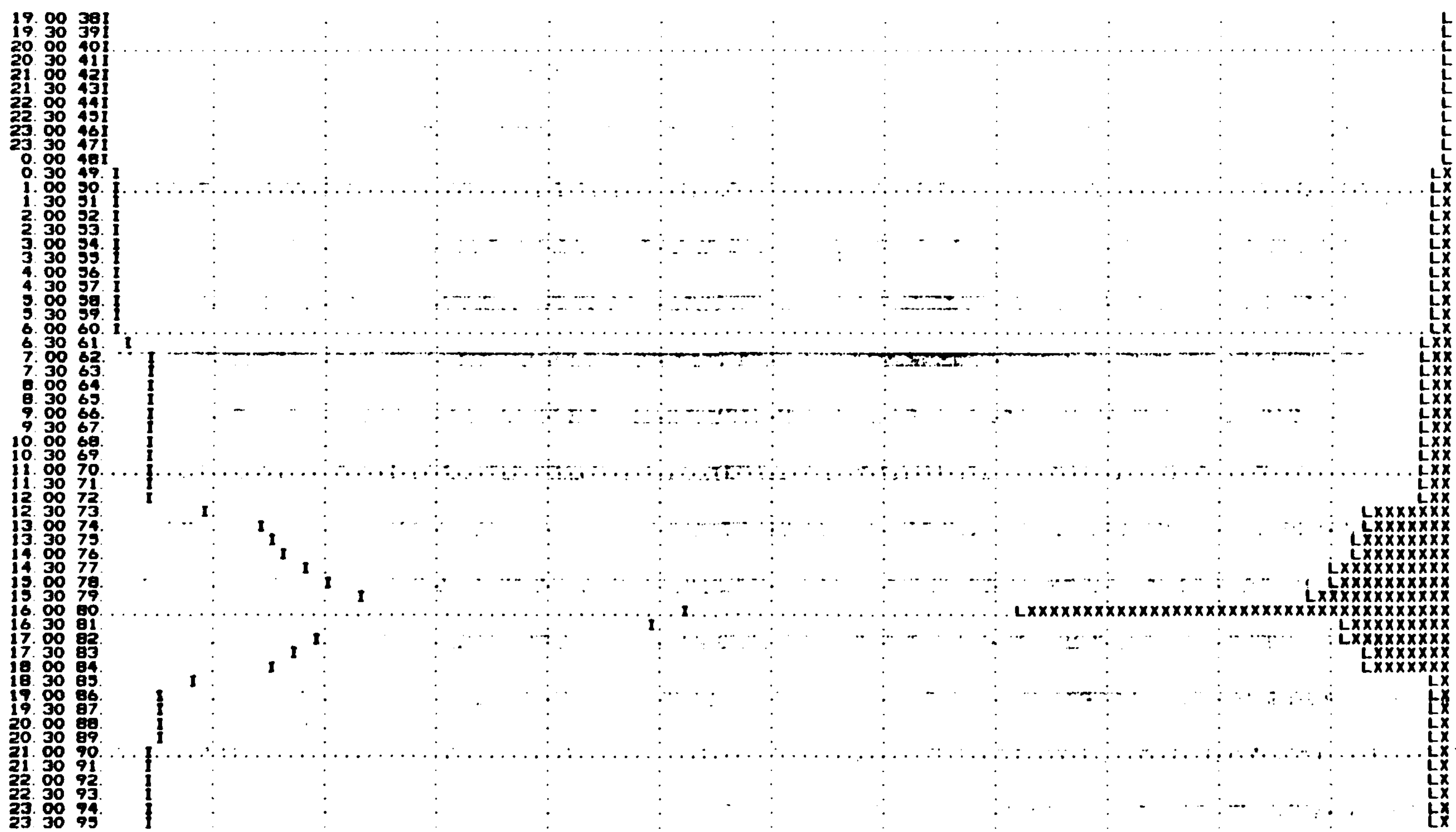
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20.00 88
20.30 89
21.00 90
21.30 91
22.00 92
22.30 93
23.00 94
23.30 95

```
 0.00 96.   I                                                                                LX
 0.30 97.   I                                                                                 L
 1.00 98.   I                                                                                 L
 1.30 99.   I                                                                                 L
 2.00100. . I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . L
 2.30101.   I                                                                                 L
 3.00102.   I                                                                                 L
 3.30103.   I                                                                                 L
 4.00104.  I                                                                                  L
 4.30105.  I                                                                                  L
 5.00106.  I                                                                                  L
 5.30107.  I                                                                                  L
 6.00108.  I                                                                                  L
 6.30109.  I                                                                                  L
 7.00110. .I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . L
 7.30111.  I                                                                                  L
 8.00112.  I                                                                                  L
 8.30113.  I                                                                                  L
 9.00114.  I                                                                                  L
 9.30115.  I                                                                                  L
10.00116.  I                                                                                  L
10.30117. I                                                                                   L
11.00118. I                                                                                   L
11.30119. I                                                                                   L
12.00120. I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . L
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#DVN#

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

6.	9.	9.	9.	8.	8.	8.	8.	8.	8.
8.	8.	14.	20.	20.	20.	20.	20.	20.	20.
20.	20.	20.	19.	44.	69.	76.	83.	93.	103.
114.	260.	246.	96.	86.	76.	43.	26.	25.	24.
23.	22.	21.	20.	19.	18.	18.	17.	56.	102.
102.	102.	102.	102.	102.	102.	102.	102.	102.	102.
199.	297.	297.	297.	297.	297.	297.	297.	297.	297.
297.	297.	695.	1093.	1202.	1312.	1475.	1639.	1816.	4153.
3921.	1530.	1366.	1202.	677.	407.	391.	375.	360.	346.
332.	319.	306.	294.	283.	271.	261.	250.	240.	231.
222.	213.	204.	196.	188.	181.	174.	167.	160.	154.
148.	142.	136.	131.	126.	121.	116.	111.	107.	103.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4153.	1783.	661.	303.	36382.
CMS	118.	50.	19.	9.	1030.
INCHES		2.60	3.86	4.42	4.42
MM		66.03	97.95	112.28	112.28
AC-FT		884.	1311.	1503.	1503.
THOUS CU M		1091.	1618.	1854.	1854.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

7.	11.	11.	11.	11.	10.	10.	10.	10.	10.
10.	10.	17.	25.	25.	25.	25.	25.	25.	25.
25.	24.	24.	24.	55.	86.	95.	103.	116.	129.
143.	325.	307.	120.	107.	95.	54.	32.	31.	29.

28.	27.	26.	25.	24.	23.	22.	21.	70.	127.
127.	127.	127.	127.	127.	127.	127.	127.	127.	127.
249.	371.	371.	371.	371.	371.	371.	371.	371.	371.
371.	371.	869.	1366.	1503.	1639.	1844.	2049.	2270.	5191.
4901.	1913.	1708.	1503.	847.	509.	489.	469.	451.	433.
415.	399.	383.	368.	353.	339.	326.	313.	300.	288.
277.	266.	255.	245.	235.	226.	217.	209.	200.	192.
185.	177.	170.	163.	157.	151.	145.	139.	133.	128.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5191.	2229.	827.	379.	45478.
CMS	147.	63.	23.	11.	1288.
INCHES		3.25	4.82	5.53	5.53
MM		82.54	122.44	140.35	140.35
AC-FT		1105.	1639.	1877.	1877.
THOUS CU M		1363.	2022.	2318.	2318.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

7.	11.	11.	11.	11.	11.	11.	11.	11.	10.
10.	10.	18.	26.	26.	26.	26.	26.	26.	26.
26.	25.	25.	25.	58.	90.	99.	108.	121.	134.
149.	338.	319.	125.	112.	98.	56.	33.	32.	31.
29.	28.	27.	26.	25.	24.	23.	22.	73.	133.
133.	133.	133.	133.	133.	132.	132.	132.	132.	132.
259.	386.	386.	386.	386.	386.	386.	386.	386.	386.
386.	386.	903.	1421.	1563.	1705.	1918.	2131.	2361.	5399.
5098.	1989.	1776.	1563.	881.	529.	508.	488.	469.	450.
432.	415.	398.	383.	367.	353.	339.	325.	312.	300.
288.	277.	266.	255.	245.	235.	226.	217.	208.	200.
192.	184.	177.	170.	163.	157.	151.	145.	139.	133.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5399.	2318.	860.	394.	47297.
CMS	153.	66.	24.	11.	1339.
INCHES		3.38	5.01	5.75	5.75
MM		85.84	127.33	145.97	145.97
AC-FT		1149.	1705.	1954.	1954.
THOUS CU M		1418.	2103.	2411.	2411.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

8.	12.	12.	12.	11.	11.	11.	11.	11.	11.
11.	11.	19.	27.	27.	27.	27.	27.	27.	27.
26.	26.	26.	26.	60.	93.	103.	112.	126.	139.
154.	351.	332.	130.	116.	102.	58.	34.	33.	32.
31.	29.	28.	27.	26.	25.	24.	23.	76.	138.
138.	138.	138.	138.	138.	138.	138.	138.	138.	138.
269.	401.	401.	401.	401.	401.	401.	401.	400.	400.
400.	400.	938.	1476.	1623.	1771.	1992.	2213.	2452.	5606.
5294.	2066.	1844.	1623.	914.	549.	528.	507.	487.	467.
449.	431.	414.	397.	381.	366.	352.	338.	324.	311.
299.	287.	276.	265.	254.	244.	235.	225.	216.	208.
199.	191.	184.	177.	170.	163.	156.	150.	144.	138.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5606.	2407.	893.	409.	49116.
CMS	159	68.	25.	12.	1391.

INCHES	3.51	5.21	5.97	5.97
MM	89.15	132.23	151.58	151.58
AC-FT	1194.	1770.	2030.	2030.
THOUS CU M	1472.	2184.	2503.	2503.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

8.	12.	12.	12.	12.	12.	12.	11.	11.	11.
11.	11.	20.	28.	28.	28.	28.	28.	28.	28.
27.	27.	27.	27.	62.	97.	106.	116.	130.	144.
160.	364.	344.	135.	120.	106.	60.	36.	34.	33.
32.	30.	29.	28.	27.	26.	25.	24.	78.	143.
143.	143.	143.	143.	143.	143.	143.	143.	143.	143.
279.	415.	415.	415.	415.	415.	415.	415.	415.	415.
415.	415.	973.	1530.	1683.	1836.	2066.	2295.	2543.	5814.
5490.	2142.	1913.	1683.	948.	570.	547.	525.	505.	485.
469.	447.	429.	412.	396.	380.	365.	350.	336.	323.
310.	298.	286.	275.	264.	253.	243.	234.	224.	215.
207.	199.	191.	183.	176.	169.	162.	156.	150.	144.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5814.	2496.	926.	424.	50935.
CMS	165.	71.	26.	12.	1442.
INCHES		3.64	5.40	6.19	6.19
MM		92.45	137.13	157.20	157.20
AC-FT		1238.	1836.	2105.	2105.
THOUS CU M		1527.	2265.	2596.	2596.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

8.	13.	12.	12.	12.	12.	12.	12.	12.	12.
12.	11.	20.	29.	29.	29.	29.	29.	29.	29.
28.	28.	28.	28.	64.	100.	110.	120.	135.	150.
166.	377.	356.	140.	125.	110.	62.	37.	36.	34.
33.	31.	30.	29.	28.	27.	26.	25.	81.	148.
148.	148.	148.	148.	148.	148.	148.	148.	148.	148.
289.	430.	430.	430.	430.	430.	430.	430.	430.	430.
430.	430.	1007.	1585.	1743.	1902.	2139.	2377.	2634.	6022.
5686.	2219.	1981.	1743.	982.	590.	567.	544.	523.	502.
482.	463.	444.	427.	410.	393.	378.	363.	348.	335.
321.	308.	296.	284.	273.	262.	252.	242.	232.	223.
214.	206.	197.	190.	182.	175.	168.	161.	155.	149.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6022.	2585.	939.	440.	52734.
CMS	171.	73.	27.	12.	1494.
INCHES		3.77	5.59	6.41	6.41
MM		95.75	142.03	162.81	162.81
AC-FT		1282.	1902.	2180.	2180.
THOUS CU M		1581.	2346.	2689.	2689.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

8.	13.	13.	13.	13.	13.	12.	12.	12.	12.
12.	12.	21.	30.	30.	30.	30.	30.	30.	29.
29.	29.	29.	29.	67.	104.	114.	124.	139.	155.
171.	390.	369.	144.	129.	114.	64.	38.	37.	35.
34.	33.	31.	30.	29.	28.	27.	26.	84.	153.

153.	153.	153.	153.	153.	153.	153.	153.	153	153.
299.	445.	445.	445.	445.	445.	445.	445.	445	445
445.	445.	1042.	1639.	1803.	1967	2213	2459.	2725.	6229
5882	2295.	2049.	1803.	1016.	611	586.	563	541	519
499.	479.	460.	441.	424.	407.	391.	375.	360.	346.
332.	319.	306.	294.	283.	271	261	250	240	231
222.	213.	204.	196.	188	181.	174.	167	160	154

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6229	2675.	992.	455	54573
CMS	176.	76.	28.	13.	1545.
INCHES		3.90	5.78	6.63	6.63
MM		99.05	146.92	168.42	168.42
AC-FT		1326.	1967.	2255.	2255
THOUS CU M		1636.	2427.	2782.	2782.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

14.	22.	22.	21.	21.	21.	21.	20.	20.	20.
20.	20.	35.	50.	50.	50.	50.	49.	49.	49.
49.	49.	49.	49.	111.	173.	190.	207.	232.	258.
286.	651.	614.	241.	215.	189.	107.	64.	61.	59.
56.	54.	52.	50.	48.	46.	44.	43.	140.	255.
255.	255.	255.	255.	255.	255.	255.	255.	255.	255.
498.	742.	742.	742.	742.	742.	742.	742.	742.	742.
742.	742.	1737.	2732.	3006.	3279.	3689.	4098.	4541.	10382
9803.	3823.	3415.	3006.	1693.	1018.	977.	938.	901.	865.
831.	798.	766.	736.	706.	678.	651.	626.	601.	577.
554.	532.	511.	490.	471.	452.	434.	417.	400.	385.
369.	355.	341.	327.	314.	302.	290.	278.	267	256.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	10382.	4458.	1653.	758.	90955.
CMS	294.	126.	47.	21.	2576.
INCHES		6.50	9.64	11.05	11.05
MM		165.08	244.87	280.71	280.71
AC-FT		2210.	3279.	3758.	3758.
THOUS CU M		2726.	4044.	4636.	4636.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

28.	44.	43.	43.	42.	42.	41.	41.	41.	40.
40.	40.	70.	100.	100.	99.	99.	99.	99.	98.
98.	98.	98.	97.	222.	346.	380.	414.	465.	516.
571.	1301.	1229.	481.	430.	379.	215.	128.	123.	118.
113.	109.	104	100.	96	92.	89	85	280.	510.
510.	510.	510.	510.	510.	510.	510.	510.	509.	509.
996.	1484.	1484.	1483.	1483.	1483.	1483.	1483.	1483.	1483.
1483.	1483.	3474.	5465.	6011.	6558.	7377.	8197.	9082.	20764.
19606.	7650.	6831.	6011.	3387	2035	1954	1877.	1802	1730.
1662.	1596.	1532.	1471	1413.	1357	1303.	1251.	1201.	1154.
1108	1064	1022.	981	942.	905.	869.	834	801.	769.
739.	709.	681.	654.	628.	603.	579.	556.	534.	513.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20764.	8915.	3306.	1516.	181910.
CMS	588.	252.	94.	43.	5151.
INCHES		13.00	19.28	22.10	22.10

```
              MM         330.17    489.74    561.41           561.41
           AC-FT          4421.     6557.     7517.            7517.
      THOUS CU M          5453.     8088.     9272.            9272.


     **********          **********          **********          **********          **********

                                        COMBINE HYDROGRAPHS

          COMBINE 2 INFLOW HYDROGRAPHS
                       ISTAQ    ICOMP    IECON    ITAPE    JPLT    JPRT    INAME   ISTAGE    IAUTO
                           1        2        0        0       0       0        1        0        0

                      SUM OF 2 HYDROGRAPHS AT       1  PLAN 1  RTIO 1
        34.       36.       35.       34.       33.       32.       31.       30.       29.       28.
        28.       27.       32.       38.       37.       36.       36.       35.       35.       34.
        34.       33.       33.       33.       57.       82.       88.       95.      105.      116.
       127.      274.      260.      112.      102.       93.       61.       44.       42.       41.
        39.       37.       35.       34.       32.       30.       28.       27.       66.      115.
       120.      130.      142.      158.      175.      193.      211.      228.      243.      257.
       374.      512.      579.      677.      806.      958.     1125.     1296.     1463.     1620.
      1763.     1892.     2438.     3056.     3500.     4088.     4894.     5865.     7003.    10606.
     12016.    11453.    13128.    14648.    15459.    16006.    16223.    15932.    15245.    14259.
     13116.    11934.    10769.     9671.     8675.     7784.     6990.     6281.     5646.     5073.
      4553.     4116.     3734.     3383.     3064.     2774.     2535.     2334.     2150.     1983.
      1853.     1749.     1652.     1562.     1477.     1398.     1324.     1262.     1212.     1164.

                      PEAK    6-HOUR    24-HOUR    72-HOUR   TOTAL VOLUME
              CFS   16223.    14066.      6641.      2786.       334297.
              CMS     459.      398.       188.        79.         9466.
           INCHES               1.61       3.04       3.18          3.18
               MM              40.84      77.12      80.88         80.88
            AC-FT              6975.     13172.     13814.        13814.
       THOUS CU M              8604.     16247.     17039.        17039.
*OVF*
                                   STATION      1

                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.   2000.   4000.   6000.   8000.  10000.  12000.  14000.  16000.  18000.      0.      0.      0.
 0.30    1I
 1.00    2I
 1.30    3I
 2.00    4I
 2.30    5I
 3.00    6I
 3.30    7I
 4.00    8I
 4.30    9I
 5.00   10I.......................................................................................
 5.30   11I
 6.00   12I
 6.30   13I
 7.00   14I
 7.30   15I
```

8.00	16
8.30	17
9.00	18
9.30	19
10.00	20
10.30	21
11.00	22
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12.00	24
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20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
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0.30	49
1.00	50
1.30	51
2.00	52
2.30	53
3.00	54
3.30	55
4.00	56
4.30	57
5.00	58
5.30	59
6.00	60
6.30	61
7.00	62
7.30	63
8.00	64
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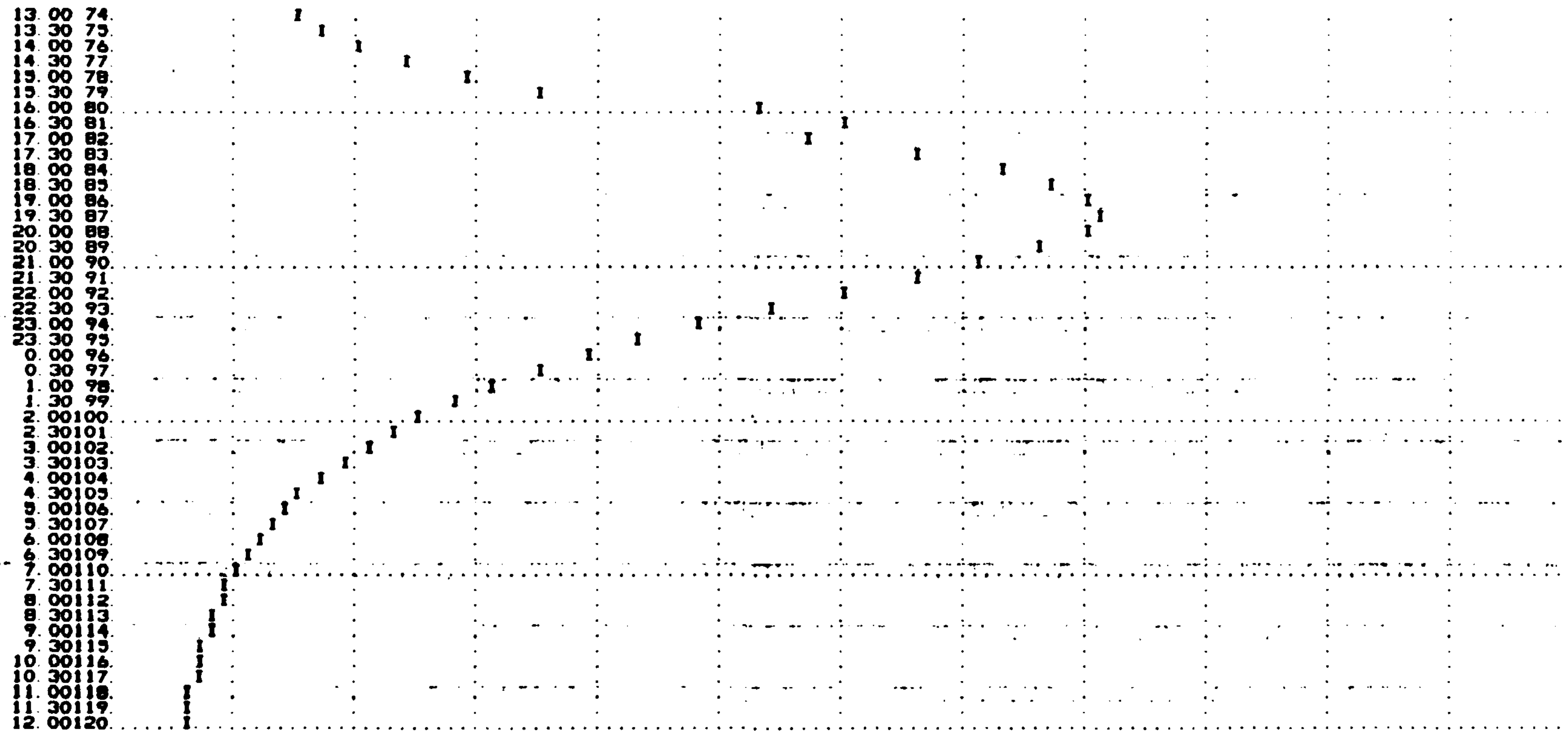

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

43.	45.	44.	43.	41.	40.	39.	38.	37.	36.
35.	34.	40.	47.	46.	45.	45.	44.	43.	43.
42.	42.	41.	41.	71.	102.	110.	119.	132.	149.
159.	342.	325.	139.	128.	116.	76.	55.	53.	51.

49.	47.	44.	42.	40.	38.	36.	34.	83.	143.
150.	162.	178.	198.	219.	242.	264.	285.	304.	321.
468.	640.	724.	847.	1007.	1198.	1407.	1620.	1828.	2024.
2204.	2365.	3047.	3820.	4375.	5110.	6117.	7331.	8753.	13257.
15020.	14316.	16410.	18310.	19324.	20007.	20278.	19915.	19057.	17824.
16394.	14918.	13461.	12089.	10843.	9730.	8738.	7852.	7058.	6342.
5691.	5145.	4667.	4229.	3830.	3467.	3168.	2917.	2688.	2479.
2316.	2186.	2065.	1952.	1846.	1747.	1654.	1578.	1515.	1455.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20278.	17583.	8301.	3482.	417872.
CMS	574.	498.	235.	99.	11833.
INCHES		2.01	3.80	3.98	3.98
MM		51.05	96.41	101.10	101.10
AC-FT		8719.	16465.	17267.	17267.
THOUS CU M		10754.	20309.	21299.	21299.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.   2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   20000.   22000.   0.
  0.30   1I
  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
  9.00  18I
  9.30  19I
 10.00  20I
 10.30  21I
 11.00  22I
 11.30  23I
 12.00  24I
 12.30  25I
 13.00  26. I
 13.30  27. I
 14.00  28. I
 14.30  29. I
 15.00  30. I
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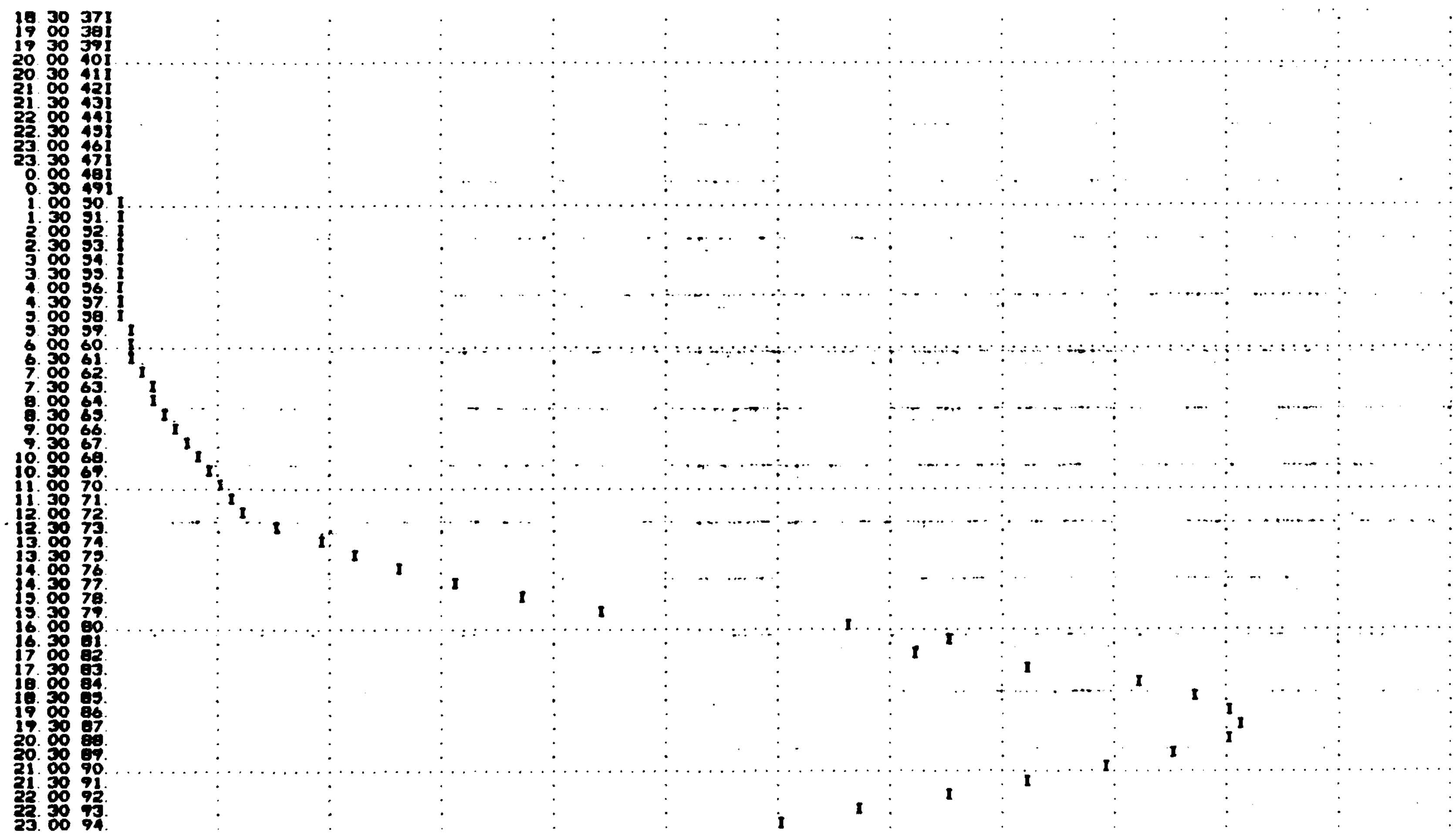
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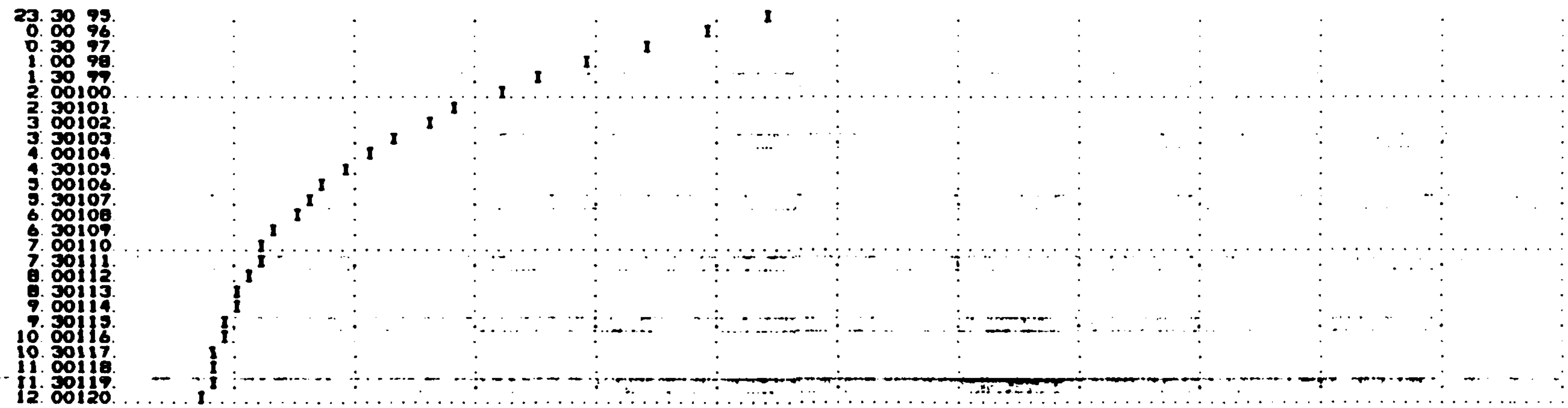


OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

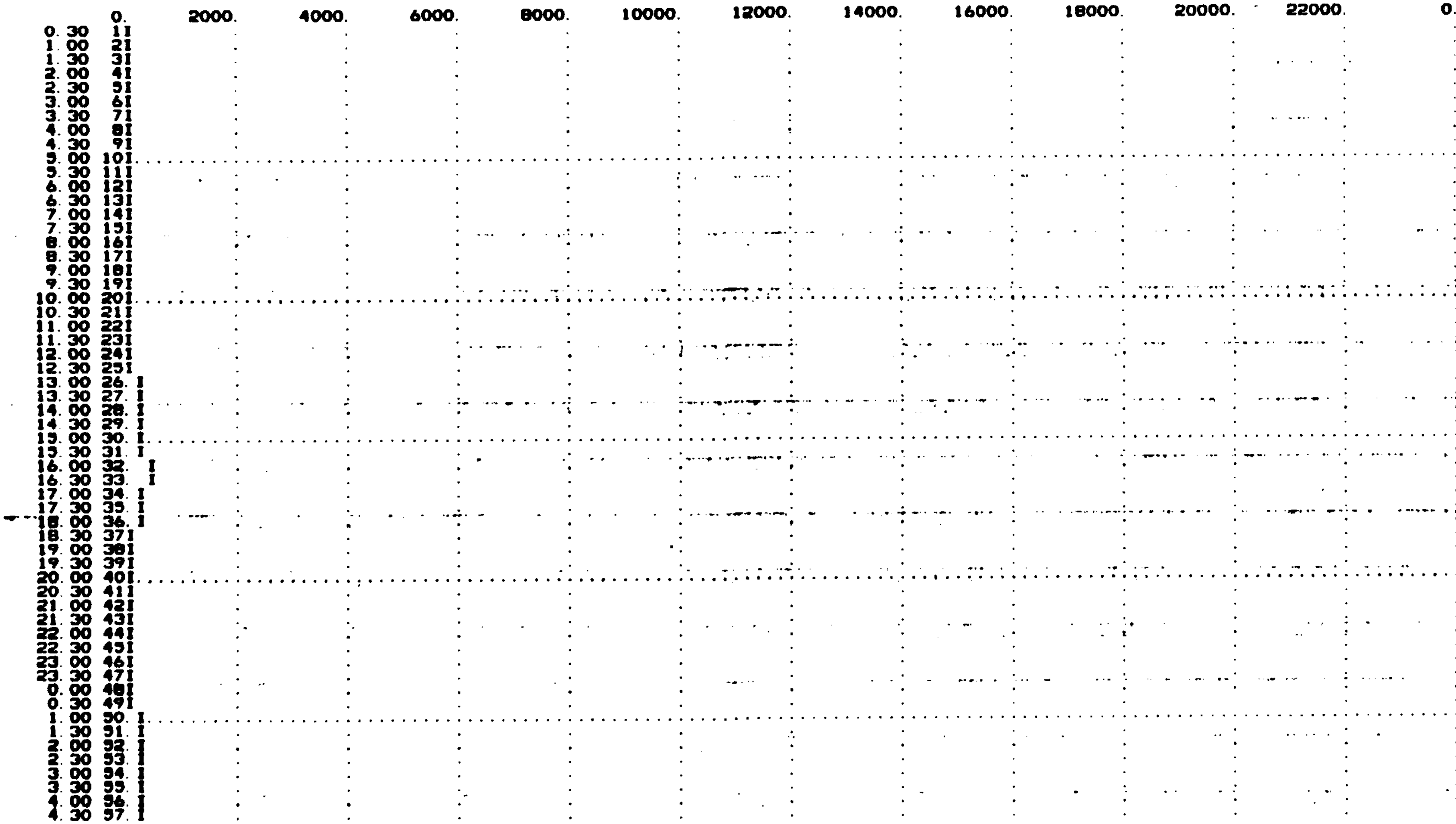
45.	47.	46.	44.	43.	42.	40.	39.	38.	37.
36.	35.	42.	49.	48.	47.	46.	46.	45.	45.
44.	43.	43.	42.	74.	106.	115.	124.	137.	150.
165.	356.	338.	145.	133.	121.	79.	57.	99.	93.
51.	48.	46.	44.	41.	39.	37.	35.	86.	149.
156.	169.	185.	205.	228.	251.	274.	296.	316.	334.
487.	665.	753.	881.	1048.	1246.	1463.	1685.	1902.	2105.
2292.	2460.	3169.	3973.	4550.	5314.	6362.	7624.	9103.	13787.
15621.	14889.	17067.	19043.	20097.	20807.	21089.	20712.	19819.	18537.
17050.	15514.	14000.	12572.	11277.	10119.	9087.	8166.	7340.	6595.
5919.	5351.	4854.	4398.	3983.	3606.	3295.	3034.	2795.	2579.
2409.	2274.	2148.	2030.	1920.	1817.	1721.	1641.	1576.	1513.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	21089.	18286.	8633.	3622.	434587.
CMS	597.	518.	244.	103.	12306.
INCHES		2.09	3.95	4.14	4.14
MM		53.09	100.26	105.15	105.15
AC-FT		9068.	17124.	17958.	17958.
THOUS CU M		11185.	21122.	22151.	22151.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)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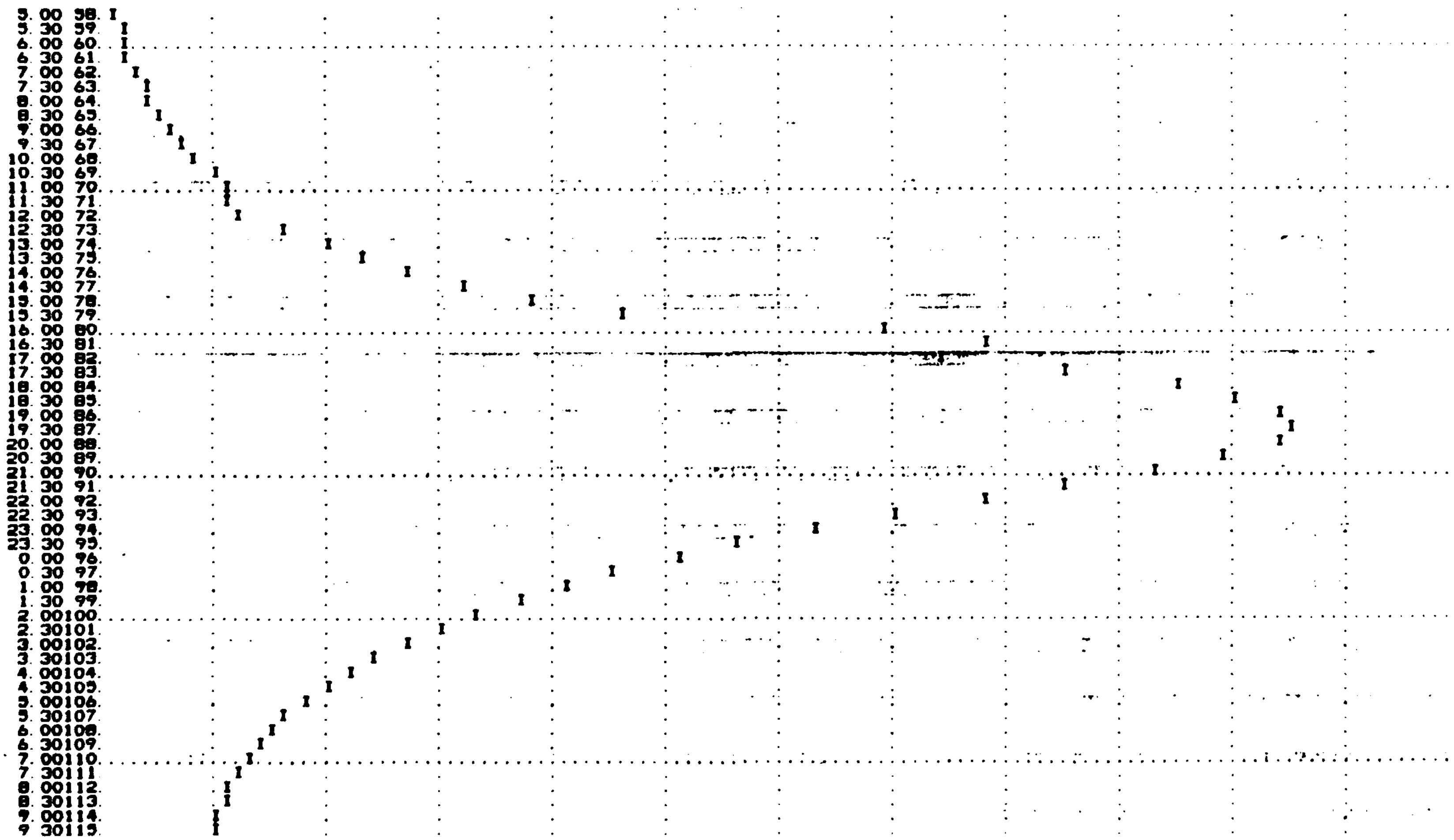
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8.00112.
8.30113.
9.00114.
9.30115.

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10.00116.      I.
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11.00118.     I .
11.30119.     I .
12.00120......I.......................................................................
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OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

46.	49.	48.	46.	45.	43.	42.	41.	40.	38.
37.	36.	43.	51.	50.	49.	48.	48.	47.	46.
46.	45.	45.	44.	77.	110.	119.	128.	142.	156.
172.	370.	351.	151.	138.	125.	82.	59.	57.	55.
53.	50.	48.	45.	43.	41.	38.	36.	89.	155.
162.	175.	192.	213.	237.	261.	285.	307.	328.	347.
506.	691.	782.	915.	1088.	1294.	1519.	1750.	1975.	2186.
2380.	2554.	3291.	4125.	4725.	5519.	6606.	7718.	9454.	14318.
16222.	15462.	17723.	19775.	20870.	21608.	21901.	21309.	20581.	19250.
17706.	16111.	14538.	13056.	11711.	10509.	9437.	8480.	7623.	6849.
6147.	5557.	5040.	4568.	4136.	3745.	3422.	3150.	2903.	2678.
2501.	2361.	2230.	2108.	1994.	1887.	1787.	1704.	1636.	1571.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	21901.	18990.	8765.	3761.	451301.
CMS	620.	538.	254.	106.	12779.
INCHES		2.17	4.10	4.30	4.30
MM		55.13	104.12	109.19	109.19
AC-FT		9416.	17782.	18649.	18649.
THOUS CU M		11615.	21934.	23003.	23003.

OVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I.......................................................................................
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I.......................................................................................
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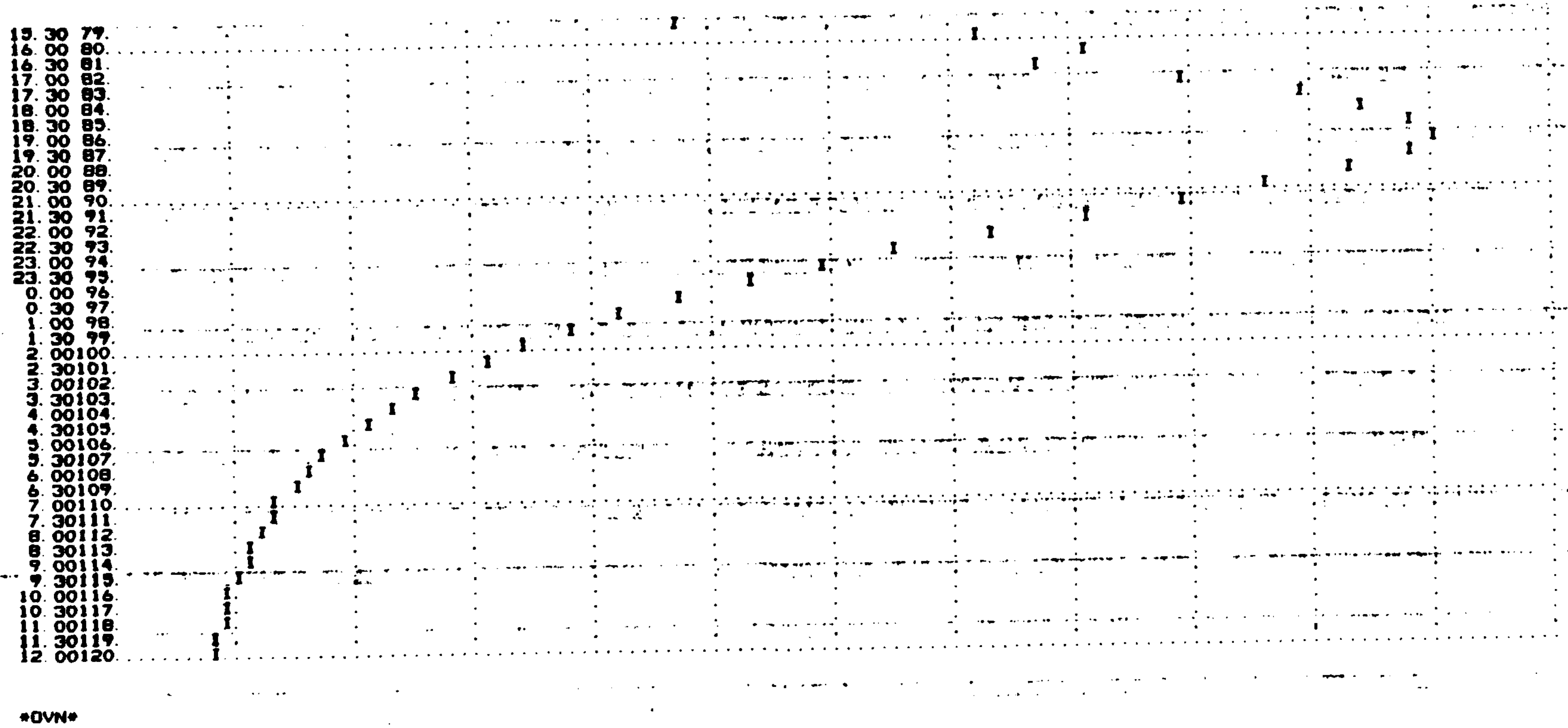
15.00	78.

FLAHERTY GIAVARA ASSOCIATES, P.C.



SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

48.	51.	49.	48.	46.	45.	44.	42.	41.	40.
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47.	47.	46.	46.	80.	114.	124.	133.	147.	162.
178.	383.	364.	156.	143.	130.	85.	61.	59.	57.
55.	52.	50.	47.	44.	42.	40.	38.	92.	160.
168.	182.	199.	221.	246.	271.	295.	319.	340.	360.
524.	716.	811.	948.	1128.	1342.	1576.	1815.	2048.	2267.
2468.	2649.	3413.	4278.	4900.	5723.	6851.	8211.	9804.	14848.
16823.	16034.	18380.	20508.	21643.	22408.	22712.	22305.	21344.	19962.

18362.	16708.	15077.	13540.	12145.	10898.	9786.	8794.	7905.	7103.
6374.	5763.	5227.	4737.	4289.	3883.	3548.	3267.	3010.	2777.
2594.	2449.	2313.	2186.	2068.	1957.	1853.	1767.	1697.	1630.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	22712.	19693.	9297.	3900.	468016.
CMS	643.	558.	263.	110.	13253.
INCHES		2.25	4.25	4.46	4.46
MM		57.18	107.97	113.24	113.24
AC-FT		9765.	18441.	19340.	19340.
THOUS CU M		12045.	22746.	23855.	23855.

DVF

STATION 1

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                        INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.     4000.     8000.    12000.    16000.    20000.    24000.        0.        0.        0.        0.        0.        0.
 0.30  1I         .         .         .         .         .         .         .         .         .         .         .         .
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 1.30  3I         .         .         .         .         .         .         .         .         .         .         .         .
 2.00  4I         .         .         .         .         .         .         .         .         .         .         .         .
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 3.00  6I         .         .         .         .         .         .         .         .         .         .         .         .
 3.30  7I         .         .         .         .         .         .         .         .         .         .         .         .
 4.00  8I         .         .         .         .         .         .         .         .         .         .         .         .
 4.30  9I         .         .         .         .         .         .         .         .         .         .         .         .
 5.00 10I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 5.30 11I         .         .         .         .         .         .         .         .         .         .         .         .
 6.00 12I         .         .         .         .         .         .         .         .         .         .         .         .
 6.30 13I         .         .         .         .         .         .         .         .         .         .         .         .
 7.00 14I         .         .         .         .         .         .         .         .         .         .         .         .
 7.30 15I         .         .         .         .         .         .         .         .         .         .         .         .
 8.00 16I         .         .         .         .         .         .         .         .         .         .         .         .
 8.30 17I         .         .         .         .         .         .         .         .         .         .         .         .
 9.00 18I         .         .         .         .         .         .         .         .         .         .         .         .
 9.30 19I         .         .         .         .         .         .         .         .         .         .         .         .
10.00 20I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
10.30 21I         .         .         .         .         .         .         .         .         .         .         .         .
11.00 22I         .         .         .         .         .         .         .         .         .         .         .         .
11.30 23I         .         .         .         .         .         .         .         .         .         .         .         .
12.00 24I         .         .         .         .         .         .         .         .         .         .         .         .
12.30 25I         .         .         .         .         .         .         .         .         .         .         .         .
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13.30 27I         .         .         .         .         .         .         .         .         .         .         .         .
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14.30 29I         .         .         .         .         .         .         .         .         .         .         .         .
15.00 30I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
15.30 31I         .         .         .         .         .         .         .         .         .         .         .         .
16.00 32. I       .         .         .         .         .         .         .         .         .         .         .         .
16.30 33. I       .         .         .         .         .         .         .         .         .         .         .         .
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18.30 37I         .         .         .         .         .         .         .         .         .         .         .         .
19.00 38I         .         .         .         .         .         .         .         .         .         .         .         .
19.30 39I         .         .         .         .         .         .         .         .         .         .         .         .
20.00 40I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
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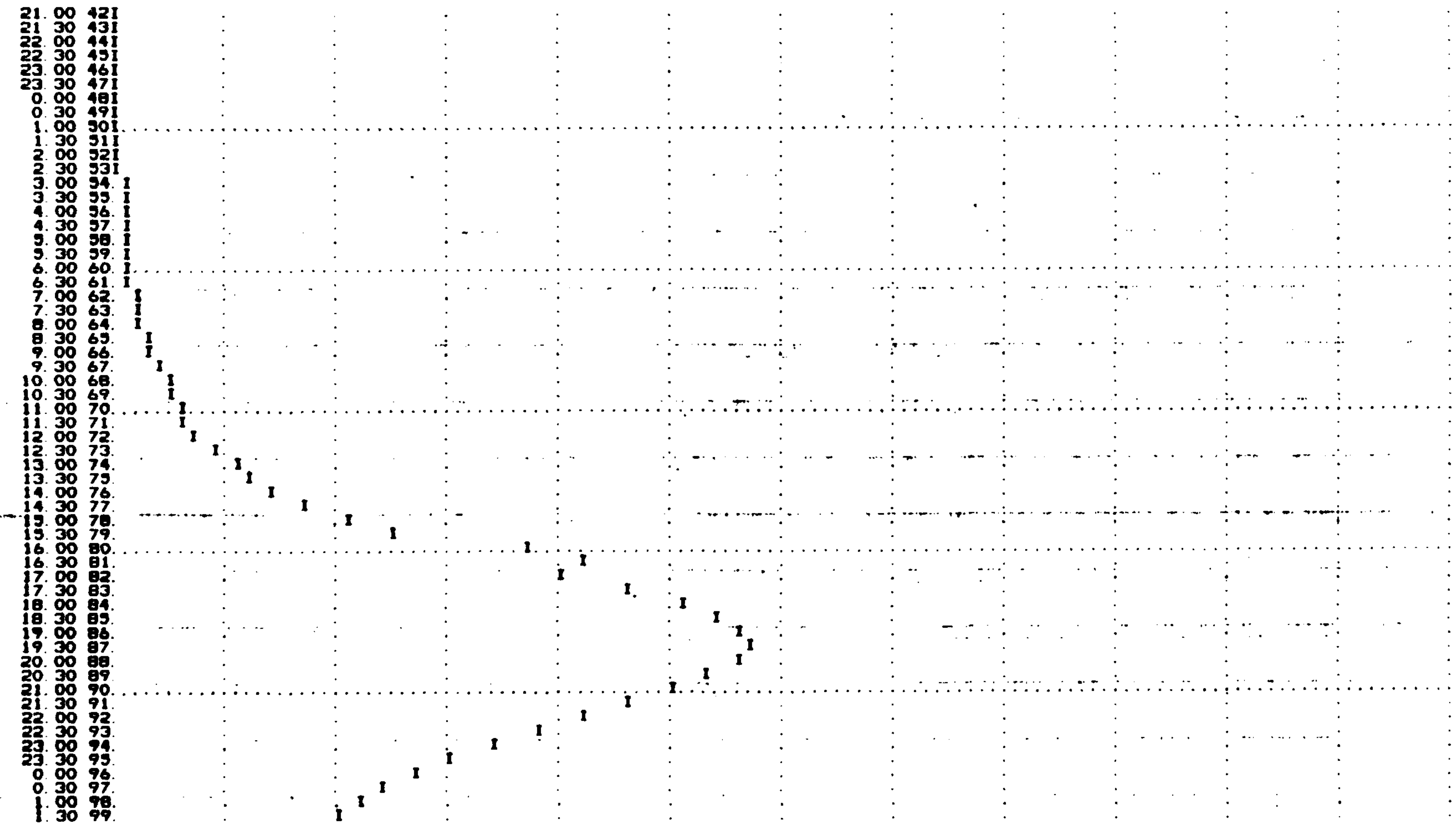
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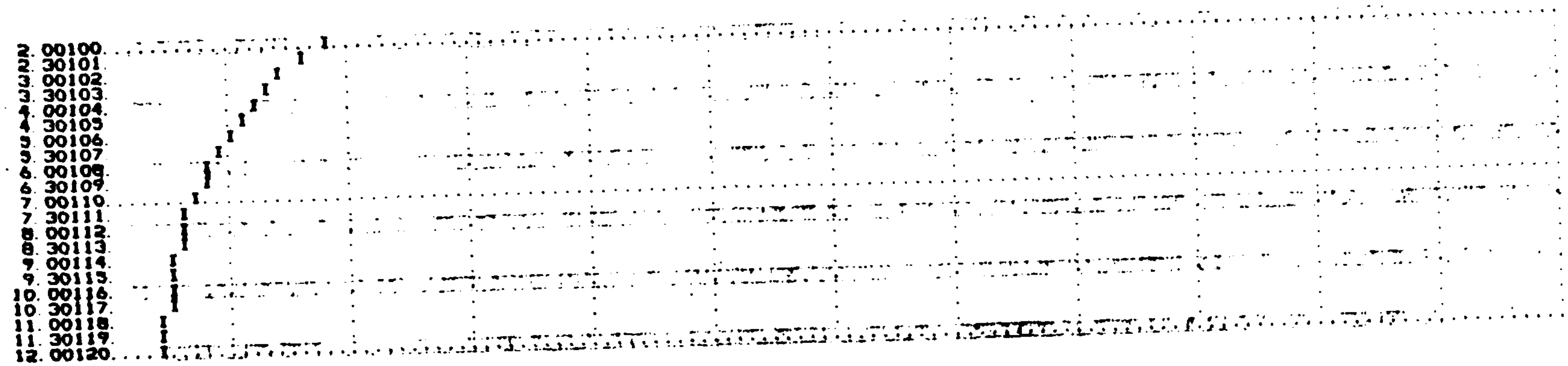

#OVN#

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

30.	33.	51.	49.	48.	46.	45.	44.	42.	41.
40.	39.	47.	55.	54.	53.	52.	51.	50.	50.
49.	48.	48.	47.	83.	118.	128.	138.	153.	168.
184.	397.	377.	162.	148.	135.	88.	63.	61.	59.
97.	54.	51.	49.	46.	44.	41.	39.	76.	166.
175.	188.	207.	229.	254.	280.	306.	330.	352.	372.
543.	742.	840.	982.	1168.	1390.	1632.	1880.	2121.	2348.
2556.	2744.	3535.	4431.	5075.	5928.	7096.	8504.	10154.	15378.
17423.	16607.	19036.	21240.	22416.	23208.	23523.	23102.	22106.	20675.
19018.	17304.	13615.	14023.	12578.	11287.	10135.	9108.	8187.	7356.
6602.	5967.	5414.	4906.	4443.	4022.	3675.	3384.	3118.	2876.
2687.	2536.	2396.	2264.	2142.	2027.	1919.	1830.	1758.	1688.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	23523.	20396.	9629.	4039.	484731.
CMS	666.	578.	273.	114.	13726.
INCHES		2.33	4.40	4.62	4.62
MM		59.22	111.83	117.28	117.28
AC-FT		10114.	19099.	20030.	20030.
THOUS CU M		12475.	23559.	24707.	24707.

#OVF#

STATION 1

```
                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.     4000.     8000.    12000.    16000.    20000.    24000.        0.        0.        0.        0.        0.        0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
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3.30	7I
4.00	8I
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6.00	12I
6.30	13I
7.00	14I
7.30	15I
8.00	16I
8.30	17I
9.00	18I
9.30	19I
10.00	20I
10.30	21I
11.00	22I
11.30	23I
12.00	24I
12.30	25I
13.00	26I
13.30	27I
14.00	28I
14.30	29I
15.00	30I
15.30	31I
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16.30	33. I
17.00	34I
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18.00	36I
18.30	37I
19.00	38I
19.30	39I
20.00	40I
20.30	41I
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21.30	43I
22.00	44I
22.30	45I
23.00	46I
23.30	47I
0.00	48I
0.30	49I
1.00	50I
1.30	51I
2.00	52I
2.30	53. I
3.00	54. I
3.30	55. I
4.00	56. I
4.30	57. I
5.00	58. I
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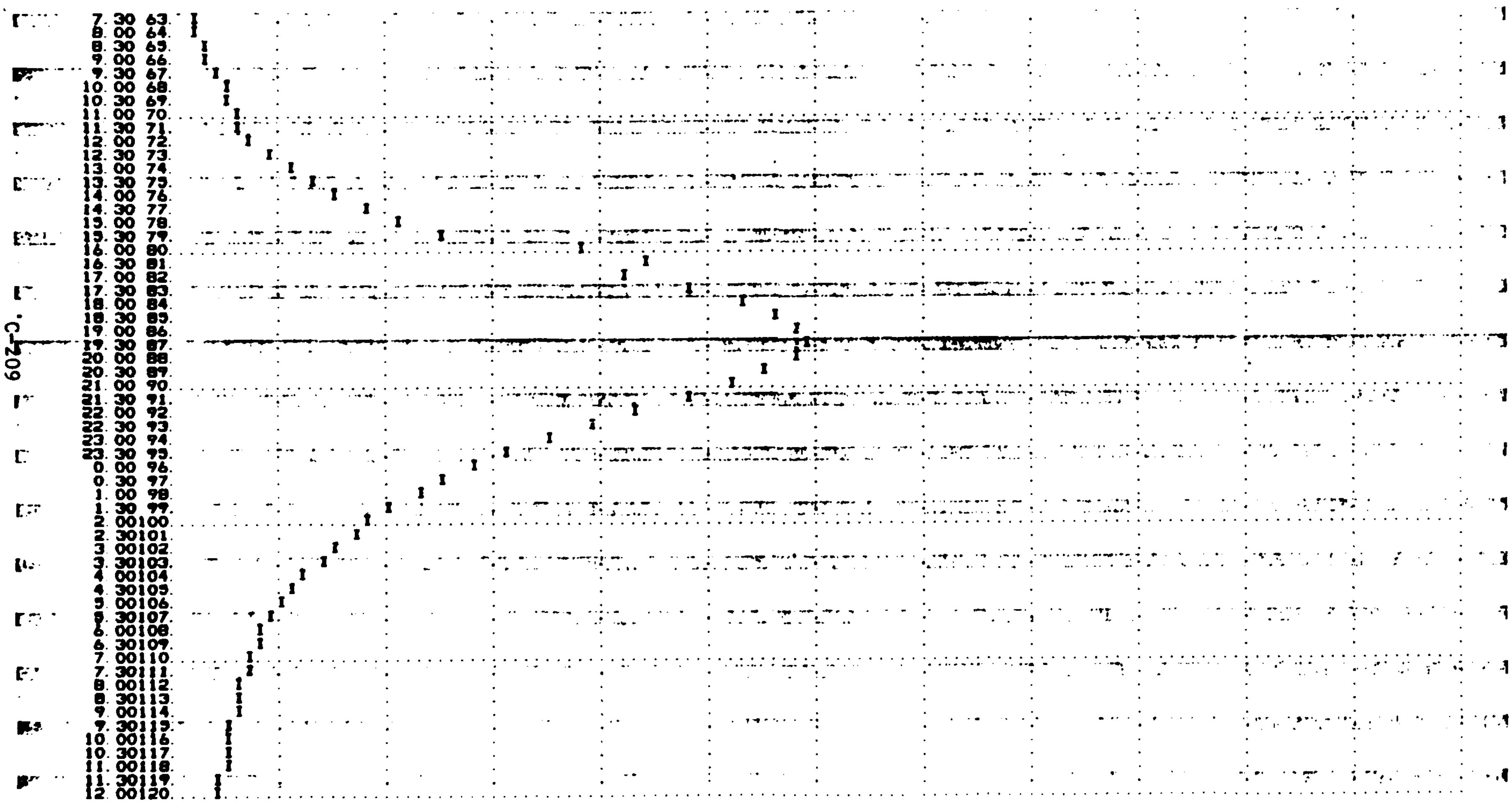
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DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

52.	55.	53.	51.	50.	48.	47.	45.	44.	43.
41.	40.	48.	56.	55.	54.	54.	53.	52.	51.
51.	50.	49.	49.	86.	122.	132.	143.	158.	174.
191.	411.	390.	167.	154.	139.	91.	65.	64.	61.
59.	56.	53.	50.	48.	45.	43.	40.	99.	172.
181.	194.	214.	237.	263.	290.	316.	342.	365.	385.
562.	768.	869.	1016.	1209.	1437.	1688.	1944.	2194.	2429.
2645.	2838.	3656.	4584.	5250.	6132.	7341.	8797.	10504.	15909.
18024.	17180.	19692.	21972.	23189.	24008.	24334.	23899.	22868.	21388.
19673.	17901.	16154.	14507.	13012.	11676.	10485.	9422.	8470.	7610.
6830.	6174.	5601.	5075.	4596.	4161.	3802.	3500.	3225.	2975.
2779.	2624.	2478.	2343.	2216.	2097.	1985.	1893.	1818.	1746.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	24334.	21100.	9961.	4179.	501446.
CMS	689.	597.	282.	118.	14199.
INCHES		2.41	4.55	4.78	4.78
MM		61.26	115.69	121.33	121.33
AC-FT		10463.	19758.	20721.	20721.
THOUS CU M		12905.	24371.	25559.	25559.

DVF

STATION 1

```
                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.30    3I
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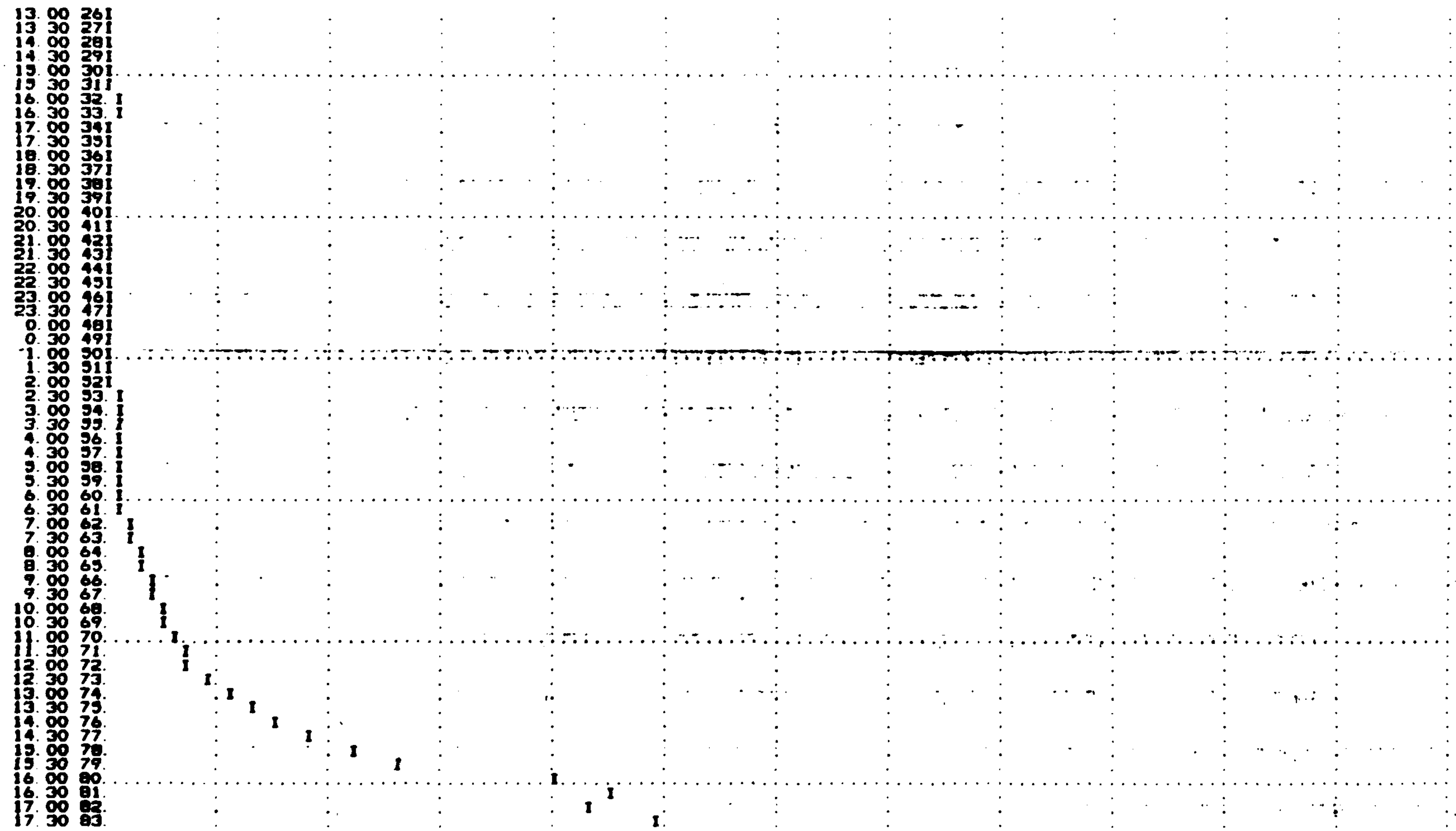
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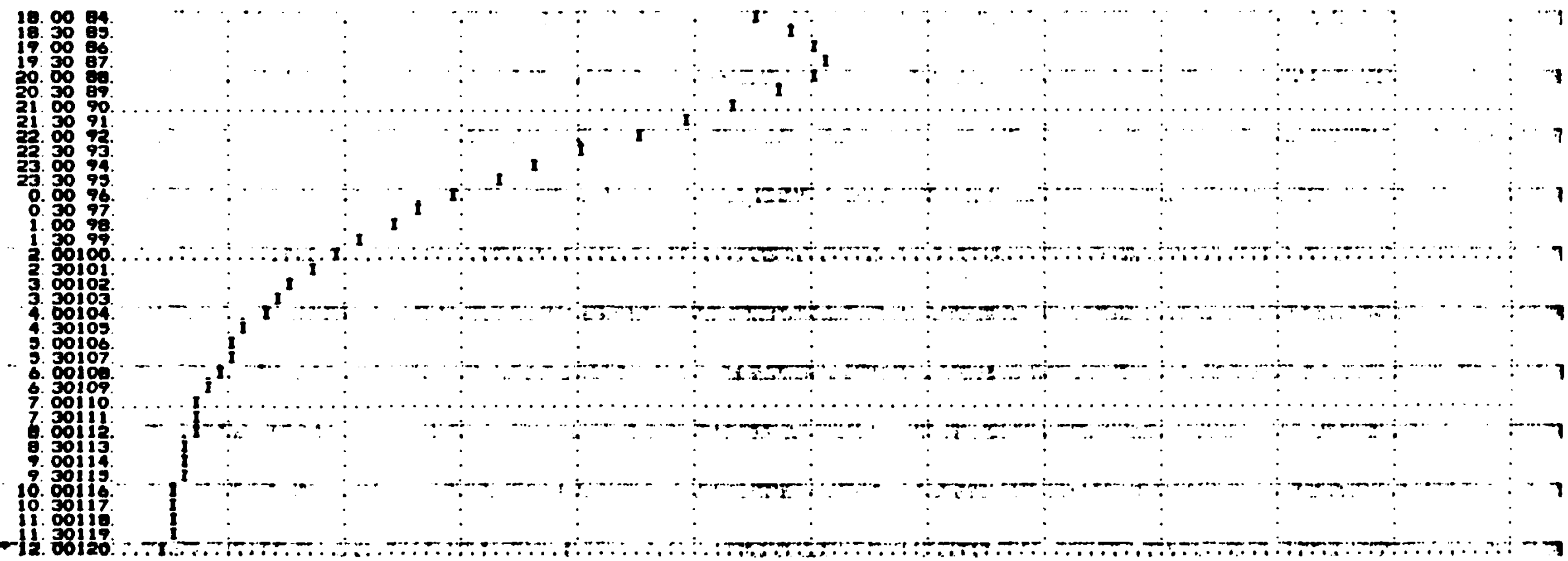
17.30 83



DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

86.	91.	88.	85.	83.	80.	78.	75.	73.	71.
69.	67.	81.	94.	92.	.91.	89.	88.	87.	86.
85.	83.	82.	81.	143.	204.	221.	238.	263.	289.
318.	684.	650.	279.	236.	232.	152.	109.	106.	102.
98.	93.	88.	84.	79.	75.	71.	67.	165.	287.
301.	324.	356.	395.	438.	483.	527.	569.	608.	642.
736.	1279.	1448.	1694.	2015.	2396.	2814.	3241.	3657.	4049.
4408.	4730.	6094.	7640.	8750.	10220.	12234.	14662.	17507.	26514.
30040.	28633.	32821.	36621.	38649.	40014.	40557.	39831.	38113.	35647.
32789.	29835.	26923.	24178.	21687.	19460.	17475.	15703.	14116.	12683.
11383.	10291.	9334.	8459.	7660.	6934.	6336.	5834.	5376.	4959.
4632.	4373.	4131.	3904.	3693.	3494.	3309.	3156.	3030.	2910.

PEAK 6-HOUR 24-HOUR 72-HOUR TOTAL VOLUME

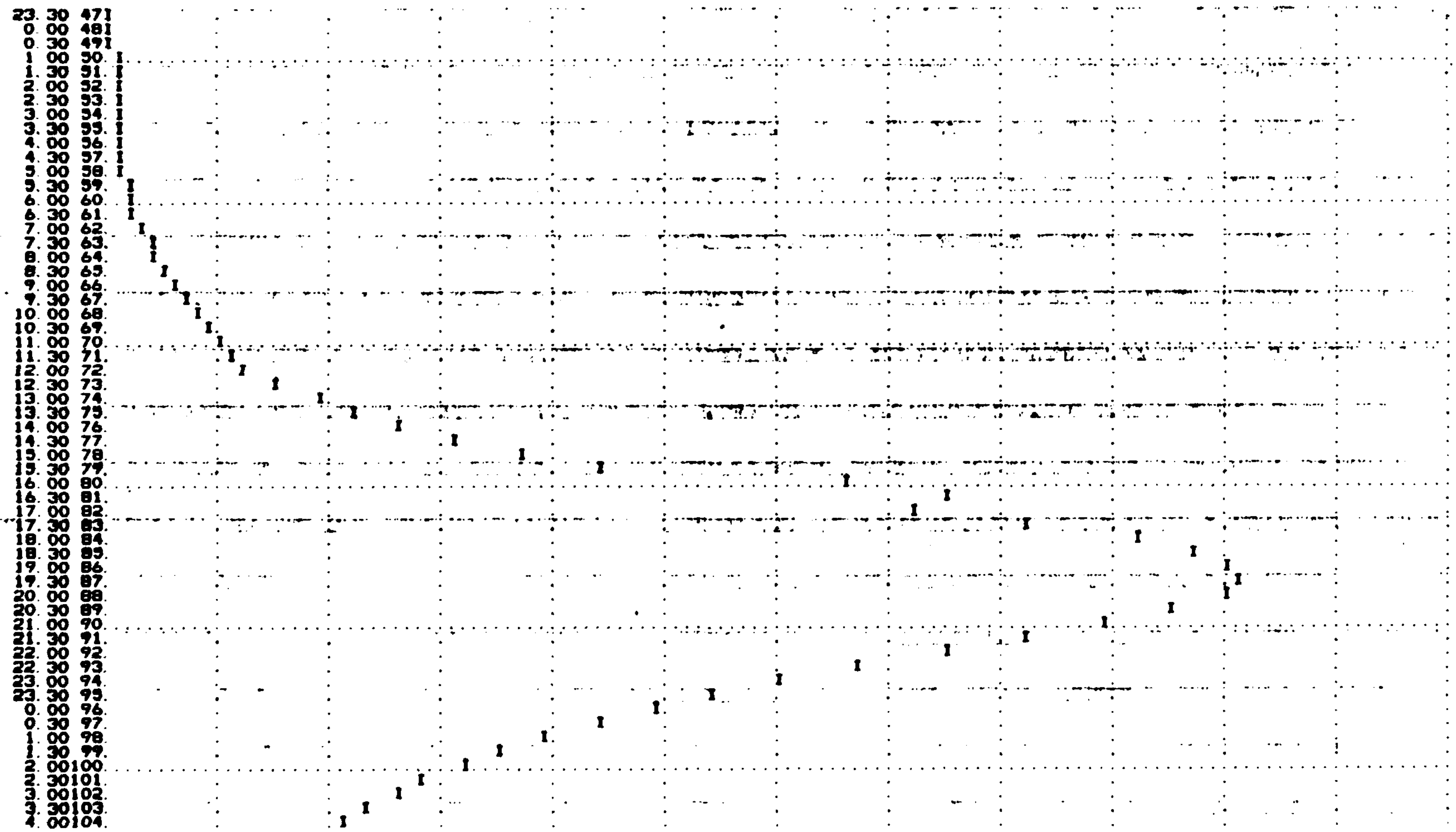
CFS	40557.	35166.	16602.	6765.	839743.
CMS	1148.	996.	470.	197.	23666.
INCHES		4.02	7.59	7.96	7.96
MM		102.10	192.81	202.21	202.21
AC-FT		17438.	32930.	34535.	34535.
THOUS CU M		21509.	40618.	42598.	42598.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
           0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.    32000.    36000.    40000.    44000.        0.
  0.30   1I
  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
  9.00  18I
  9.30  19I
 10.00  20I
 10.30  21I
 11.00  22I
 11.30  23I
 12.00  24I
 12.30  25I
 13.00  26. I
 13.30  27. I
 14.00  28. I
 14.30  29. I
 15.00  30. I
 15.30  31. I
 16.00  32.   I
 16.30  33.   I
 17.00  34. I
 17.30  35. I
 18.00  36. I
 18.30  37I
 19.00  38I
 19.30  39I
 20.00  40I
 20.30  41I
 21.00  42I
 21.30  43I
 22.00  44I
 22.30  45I
 23.00  46I
```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0.00 48.
0.30 49.
1.00 50.
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2.00 52.
2.30 53.
3.00 54.
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4.00 56.
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00 100.
2.30 101.
3.00 102.
3.30 103.
4.00 104.

```
 4.30105.                      I.
 5.00106.                    I
 5.30107.                   I
 6.00108.                  I
 6.30109.                I
 7.00110. ..............I....................................................
 7.30111.               I
 8.00112.              I
 8.30113.             I
 9.00114.             I
 9.30115.            I.
10.00116.            I.
10.30117.           I
11.00118.           I
11.30119.           I
12.00120. .........I.........................................................
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

172.	182.	176.	171.	165.	160.	155.	151.	147.	142.
138.	134.	161.	188.	185.	182.	179.	178.	174.	171.
169.	167.	165.	163.	285.	408.	441.	475.	527.	579.
636.	1369.	1300.	558.	512.	465.	304.	218.	212.	204.
196.	186.	177.	168.	159.	150.	142.	135.	330.	573.
602.	648.	712.	790.	877.	967.	1055.	1138.	1219.	1284.
1872.	2559.	2896.	3387.	4029.	4792.	5627.	6481.	7313.	8098.
8815.	9461.	12188.	15279.	17499.	20440.	24468.	29325.	35013.	33029.
60081.	57266.	65642.	73242.	77297.	80028.	81113.	79662.	76227.	71295.
65578.	59670.	53846.	48356.	43374.	38921.	34950.	31407.	28232.	25367.
22766.	20581.	18668.	16917.	15319.	13869.	12673.	11668.	10751.	9917.
9264.	8746.	8261.	7808.	7385.	6989.	6618.	6312.	6061.	5820.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	81113.	70332.	33204.	13929.	1671485.
CMS	2297.	1992.	940.	394.	47331.
INCHES		8.04	15.18	15.92	15.92
MM		204.20	385.62	404.42	404.42
AC-FT		34875.	65860.	69070.	69070.
THOUS CU M		43018.	81236.	85196.	85196.

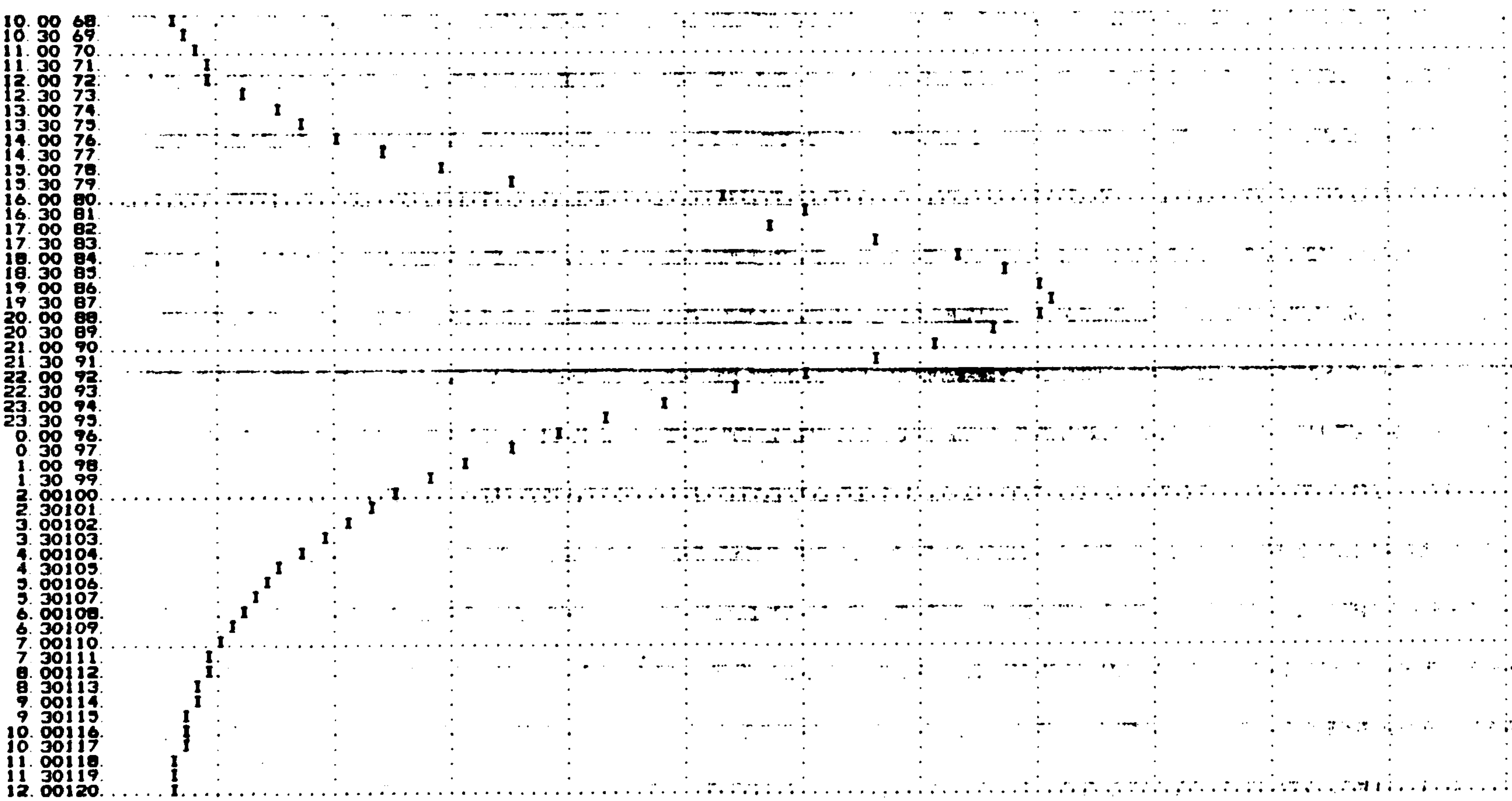
OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
        0.    10000.   20000.   30000.   40000.   50000.   60000.   70000.   80000.   90000.   0.   0.   0.
0.30  11
1.00  21
1.30  31
2.00  41
2.30  51
3.00  61
3.30  71
4.00  81
4.30  91
```

```
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29. I
15.00  30. I
15.30  31. I
16.00  32. I
16.30  33. I
17.00  34. I
17.30  35. I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
21.30  43I
22.00  44I
22.30  45I
23.00  46I
23.30  47I
 0.00  48I
 0.30  49I
 1.00  50. I
 1.30  51. I
 2.00  52. I
 2.30  53. I
 3.00  54. I
 3.30  55. I
 4.00  56. I
 4.30  57. I
 5.00  58. I
 5.30  59. I
 6.00  60. I
 6.30  61.   I
 7.00  62.    I
 7.30  63.    I
 8.00  64.    I
 8.30  65.      I
 9.00  66.        I
 9.30  67.          I
```


10.00 68.
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11.30 71.
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13.30 75.
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14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

DVN

```
**********          **********          **********          **********          **********
                                  HYDROGRAPH ROUTING

          OTSEGO LAKE ROUTING - MODIFIED PULS METHOD
                      ISTAG     ICOMP     IECON     ITAPE      JPLT      JPRT     INAME    ISTAGE     IAUTO
                          1         1         0         0         0         0         1         0         0
                                           ROUTING DATA
              QLOSS     CLOSS       AVG      IRES     ISAME      IOPT      IPMP               LSTR
                0.0     0.000      0.00         1         1         0         0                  0

                      NSTPS     NSTDL       LAG     AMSKK         X       TSK     STORA    ISPRAT
                          1         0         0     0.000     0.000     0.000        0.        -1

STAGE      1191.10   1191.60   1192.00   1192.20   1192.50   1192.80   1192.90   1193.00   1193.10   1193.50
           1194.00   1194.20   1195.00   1200.00   1208.00   1210.00

 FLOW         0.00      8.60     38.10     96.60    166.30    247.90    306.80    323.70    351.20    481.80
            673.90    757.90   1128.80   4395.70  12032.10  14305.30

  CAPACITY=     20440.    27400.    39800.   112820.

 ELEVATION=      1190.     1192.     1194.     1220.

                   CREL     SPWID      COQW      EXPW     ELEVL      COQL     CAREA      EXPL
                 1191.1       0.0       0.0       0.0       0.0       0.0       0.0       0.0

                                              DAM DATA
                                   TOPEL      COQD      EXPD     DAMWID
                                  1194.2       2.5       1.5        2.

                                   STATION      1, PLAN 1, RATIO 1

                                 END-OF-PERIOD HYDROGRAPH ORDINATES

                                              OUTFLOW
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        0.        0.        0.        0.        0.
            0.        0.        0.        0.        0.        3.        5.        8.       22.       38.
           52.       70.       89.      107.      125.      142.      156.      170.      183.      195.
          206.      216.      225.      233.      240.      246.      256.      267.      277.      286.
          294.      301.      307.      309.      311.      313.      314.      315.      317.      318.

                                              STORAGE
        20441.    20442.    20443.    20444.    20445.    20446.    20447.    20448.    20450.    20451.
        20452.    20453.    20454.    20455.    20456.    20457.    20458.    20459.    20460.    20461.
        20462.    20463.    20464.    20465.    20467.    20469.    20472.    20475.    20478.    20482.
        20487.    20494.    20505.    20512.    20516.    20520.    20522.    20524.    20525.    20526.
        20527.    20528.    20529.    20530.    20531.    20532.    20533.    20535.    20536.    20539.
        20543.    20547.    20553.    20558.    20564.    20572.    20579.    20588.    20597.    20607.
```

20619.	20638.	20660.	20685.	20715.	20751.	20794.	20844.	20900.	20963.
21032.	21107.	21196.	21309.	21444.	21600.	21785.	22007.	22272.	22635.
23103.	23587.	24095.	24668.	25289.	25939.	26603.	27267.	27910.	28518.
29081.	29596.	30062.	30480.	30853.	31188.	31486.	31752.	31991.	32204.
32394.	32564.	32716.	32854.	32977.	33087.	33186.	33275.	33355.	33429.
33495.	33557.	33614.	33668.	33716.	33762.	33805.	33845.	33882.	33917.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.2	1190.2	1190.2	1190.2	1190.3	1190.3	1190.4	1190.4	1190.5
1190.6	1190.7	1190.8	1191.0	1191.1	1191.3	1191.4	1191.6	1191.7	1191.8
1192.0	1192.1	1192.2	1192.2	1192.3	1192.4	1192.5	1192.5	1192.6	1192.6
1192.6	1192.7	1192.7	1192.7	1192.8	1192.8	1192.8	1192.8	1192.8	1192.9
1192.9	1192.9	1192.9	1192.9	1192.9	1192.9	1192.9	1193.0	1193.0	1193.0

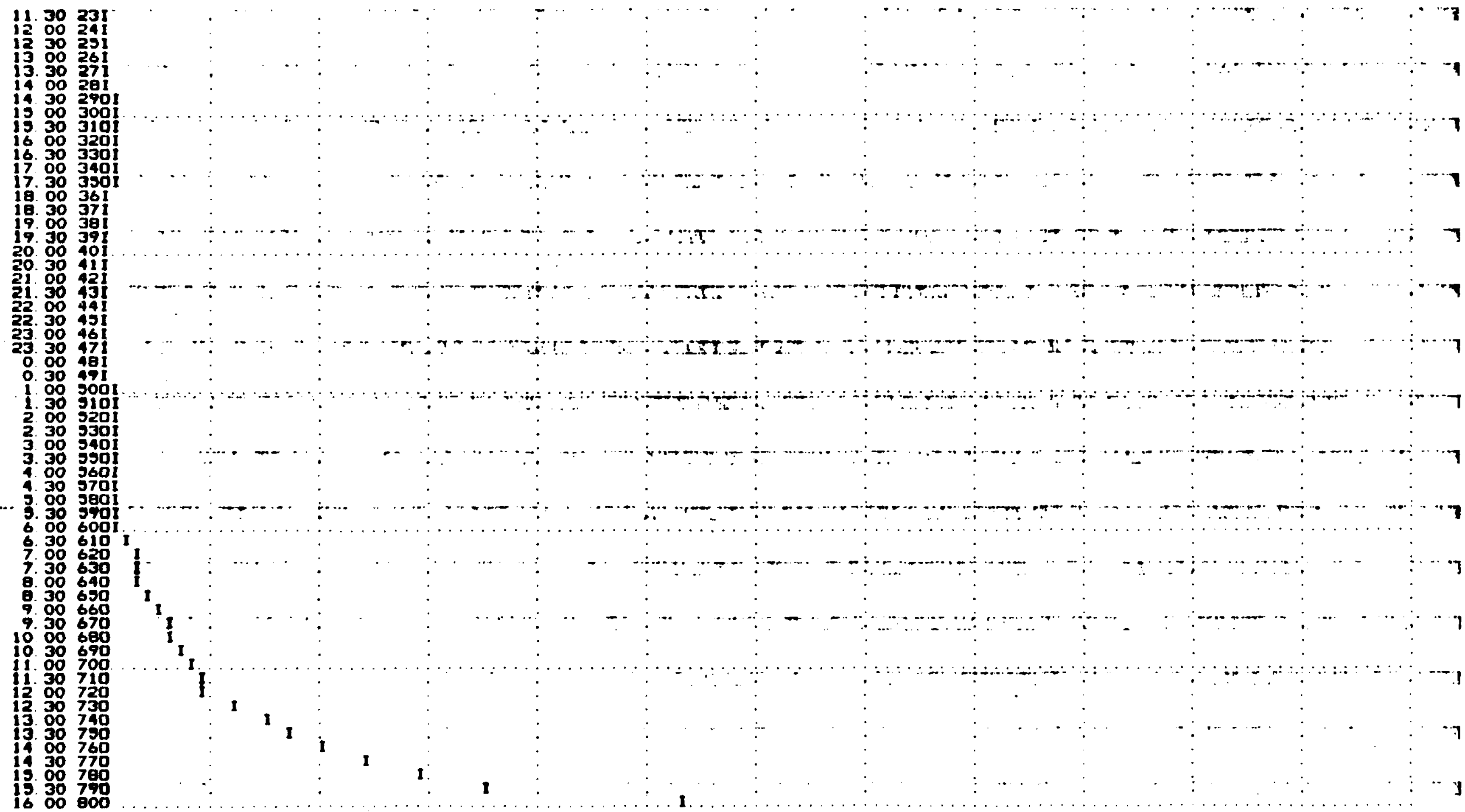
PEAK OUTFLOW IS 318. AT TIME 60.00 HOURS

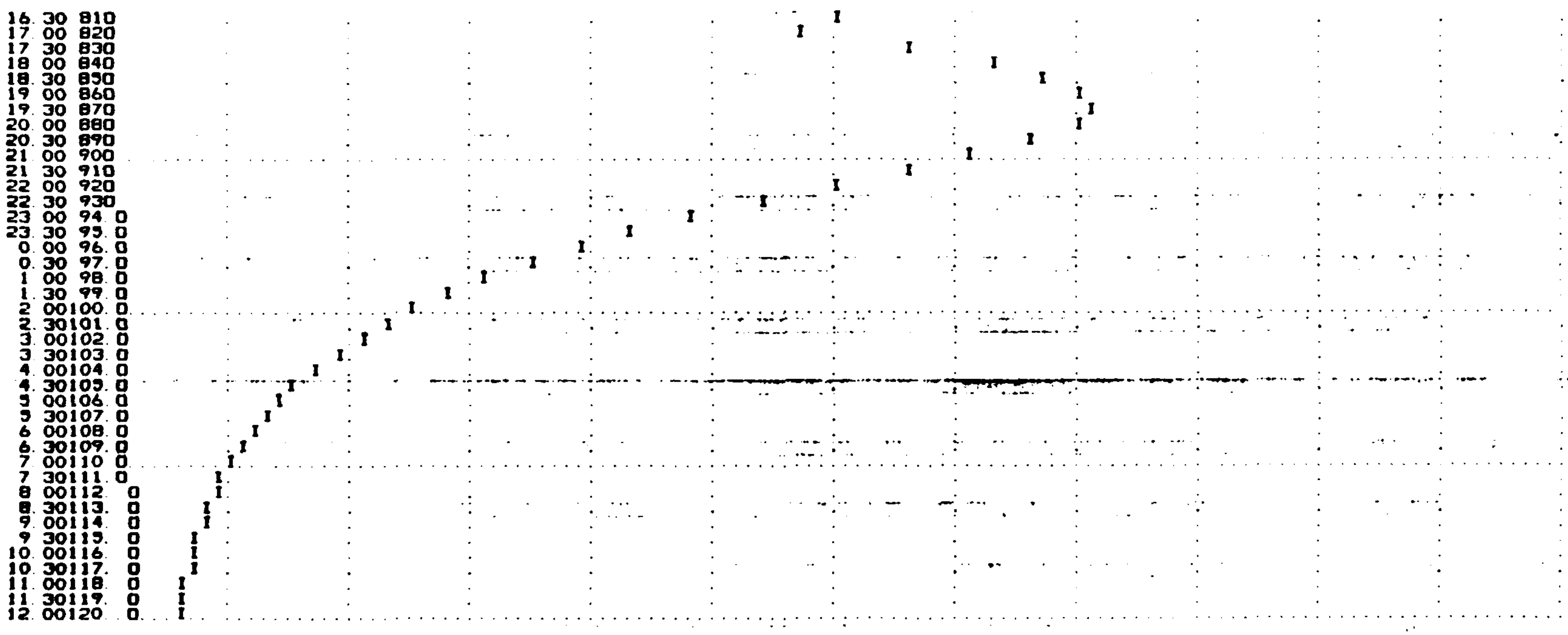
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	318.	303.	141.	98.	6758.
CMS	9.	9.	4.	2.	191.
INCHES		0.03	0.06	0.06	0.06
MM		0.88	1.63	1.63	1.63
AC-FT		150.	279.	279.	279.
THOUS CU M		185.	344.	344.	344.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0    2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   0.   0.   0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
```


11.30 231
12.00 241
12.30 251
13.00 261
13.30 271
14.00 281
14.30 290
15.00 300
15.30 310
16.00 320
16.30 330
17.00 340
17.30 350
18.00 361
18.30 371
19.00 381
19.30 391
20.00 401
20.30 411
21.00 421
21.30 431
22.00 441
22.30 451
23.00 461
23.30 471
0.00 481
0.30 491
1.00 500
1.30 510
2.00 520
2.30 530
3.00 540
3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800



OVN

STATION 1, PLAN 1, RATIO 2

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

0.	0.	0.	2.	5.	8.	28.	49.	77.	110.
144.	177.	209.	239.	286.	315.	331.	350.	370.	388.
404.	418.	431.	442.	452.	461.	469.	476.	482.	489.
495.	501.	506.	511.	515.	520.	523.	527.	530.	533.

STORAGE

20441.	20442.	20443.	20444.	20445.	20446.	20447.	20448.	20450.	20451.
20452.	20453.	20454.	20455.	20456.	20457.	20458.	20459.	20460.	20461.
20462.	20463.	20464.	20465.	20468.	20471.	20475.	20479.	20484.	20489.
20494.	20504.	20516.	20526.	20531.	20536.	20539.	20541.	20543.	20545.
20546.	20547.	20548.	20549.	20550.	20552.	20553.	20554.	20556.	20560.
20565.	20572.	20578.	20586.	20594.	20603.	20612.	20623.	20634.	20647.
20663.	20685.	20713.	20745.	20783.	20828.	20881.	20942.	21014.	21092.
21179.	21273.	21384.	21525.	21694.	21890.	22121.	22399.	22730.	23184.
23769.	24374.	25008.	25725.	26501.	27313.	28144.	28972.	29774.	30532.
31233.	31872.	32450.	32968.	33430.	33842.	34210.	34538.	34831.	35091.
35323.	35529.	35713.	35877.	36024.	36155.	36271.	36376.	36470.	36555.
36632.	36702.	36766.	36825.	36880.	36930.	36977.	37020.	37059.	37096.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.2	1190.2	1190.2	1190.2	1190.3	1190.3	1190.4	1190.5	1190.5	1190.6
1190.8	1190.9	1191.1	1191.2	1191.4	1191.6	1191.8	1191.9	1192.1	1192.3
1192.4	1192.5	1192.7	1192.8	1192.9	1193.0	1193.0	1193.1	1193.2	1193.2
1193.3	1193.3	1193.3	1193.4	1193.4	1193.4	1193.5	1193.5	1193.5	1193.5
1193.5	1193.6	1193.6	1193.6	1193.6	1193.6	1193.6	1193.6	1193.6	1193.6

PEAK OUTFLOW IS 533. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	533.	509.	261.	104.	12508.
CMS	15.	14.	7.	3.	354.
INCHES		0.06	0.12	0.12	0.12
MM		1.48	3.03	3.03	3.03
AC-FT		252.	517.	517.	517.
THOUS CU M		311.	638.	638.	638.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0.     4000.     8000.    12000.    16000.    20000.    24000.        0.        0.        0.        0.        0.        0.
0.30  1I
1.00  2I
1.30  3I
2.00  4I
2.30  5I
3.00  6I
3.30  7I
4.00  8I
4.30  9I
5.00 10I.......................................................................................................
```

```
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 320I
16.30 330I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
 0.00 48I
 0.30 49I
 1.00 50I
 1.30 51I
 2.00 52I
 2.30 53I
 3.00 54I
 3.30 550I
 4.00 560I
 4.30 570I
 5.00 580I
 5.30 590I
 6.00 600I
 6.30 610I
 7.00 620 I
 7.30 630 I
 8.00 640 I
 8.30 650  I
 9.00 660  I
 9.30 670   I
10.00 680   I
```

```
10 30 690
11 00 700
11 30 710
12 00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 810
17.00 820
17.30 830
18.00 840
18.30 850
19.00 860
19.30 870
20.00 880
20.30 890
21.00 900
21.30 910
22.00 920
22.30 93.0
23.00 94.0
23.30 95.0
0.00 96.0
0.30 97.0
1.00 98.0
1.30 99.0
2.00100.0
2.30101.0
3.00102.0
3.30103.0
4.00104.0
4.30105.0
5.00106.0
5.30107.0
6.00108.0
6.30109.0
7.00110.0
7.30111.0
8.00112.0
8.30113.0
9.00114.0
9.30115.0
10.00116.0
10.30117.0
11.00118.0
11.30119.0
12.00120.0
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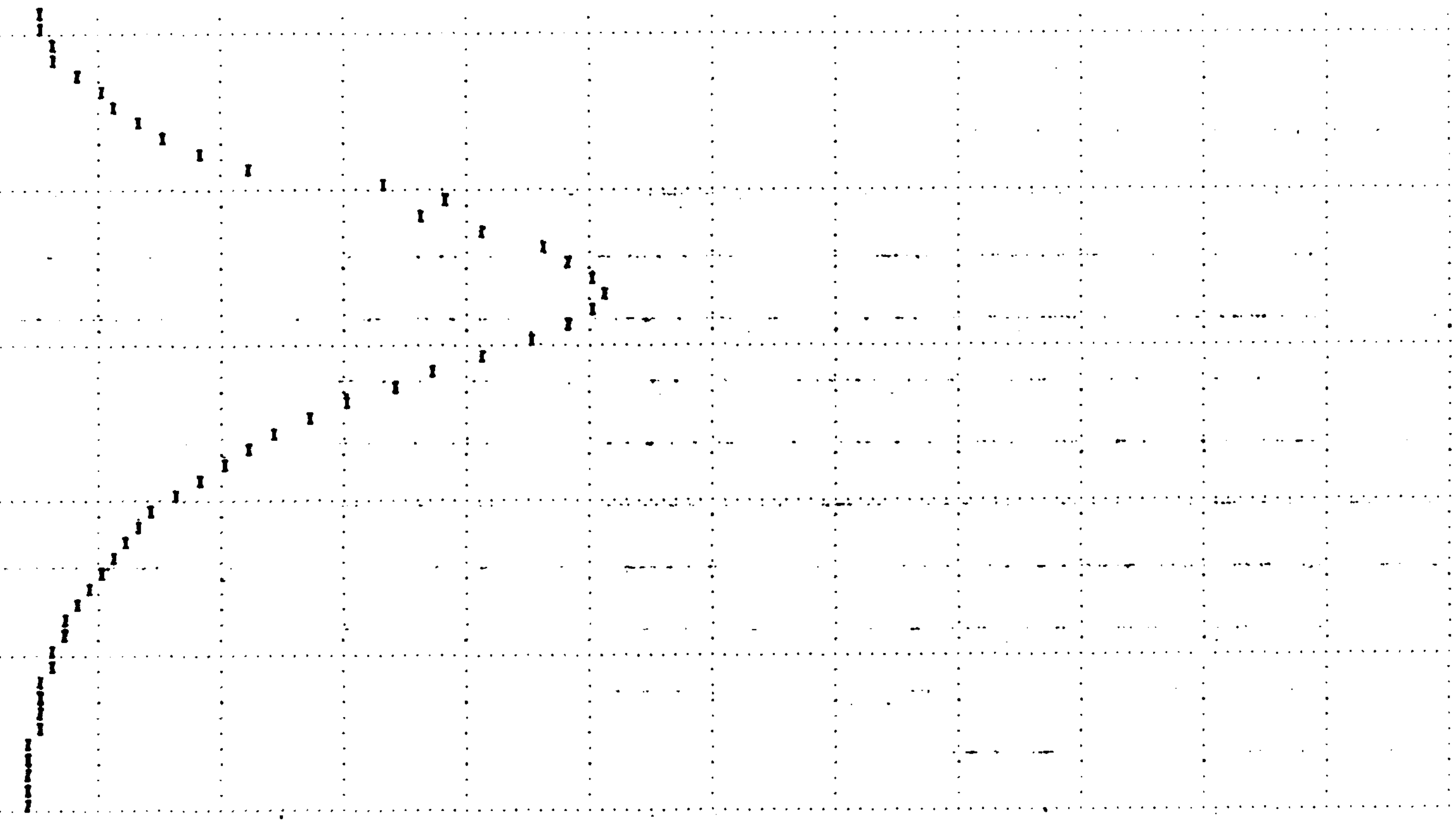


OVN

STATION 1, PLAN 1, RATIO 3

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	3.	6.	13.	36.	58.	72.	129.
165.	203.	237.	290.	319.	341.	365.	388.	409.	427.
444.	458.	471.	483.	495.	506.	516.	525.	532.	539.
545.	551.	556.	561.	565.	569.	573.	576.	579.	582.

STORAGE

20441.	20442.	20443.	20444.	20445.	20446.	20447.	20448.	20450.	20451.
20452.	20453.	20454.	20455.	20456.	20457.	20458.	20459.	20460.	20461.
20462.	20463.	20464.	20465.	20468.	20471.	20475.	20479.	20485.	20490.
20496.	20507.	20521.	20530.	20536.	20540.	20543.	20545.	20547.	20549.
20552.	20553.	20554.	20555.	20556.	20557.	20558.	20559.	20561.	20565.
20571.	20577.	20583.	20591.	20599.	20609.	20619.	20631.	20643.	20656.
20672.	20695.	20724.	20757.	20798.	20843.	20898.	20963.	21036.	21118.
21208.	21306.	21421.	21568.	21743.	21946.	22187.	22476.	22821.	23294.
23901.	24531.	25190.	25935.	26744.	27587.	28451.	29313.	30147.	30934.
31663.	32327.	32927.	33465.	33945.	34372.	34754.	35094.	35398.	35668.
35907.	36118.	36307.	36478.	36631.	36766.	36887.	36995.	37089.	37173.
37249.	37319.	37383.	37442.	37496.	37545.	37590.	37632.	37670.	37707.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2
1190.2	1190.2	1190.2	1190.3	1190.3	1190.3	1190.4	1190.5	1190.5	1190.7
1190.8	1190.9	1191.1	1191.3	1191.4	1191.6	1191.8	1192.0	1192.2	1192.3
1192.5	1192.6	1192.8	1192.9	1193.0	1193.1	1193.1	1193.2	1193.3	1193.3
1193.4	1193.4	1193.5	1193.5	1193.5	1193.6	1193.6	1193.6	1193.6	1193.6
1193.7	1193.7	1193.7	1193.7	1193.7	1193.7	1193.7	1193.7	1193.8	1193.8

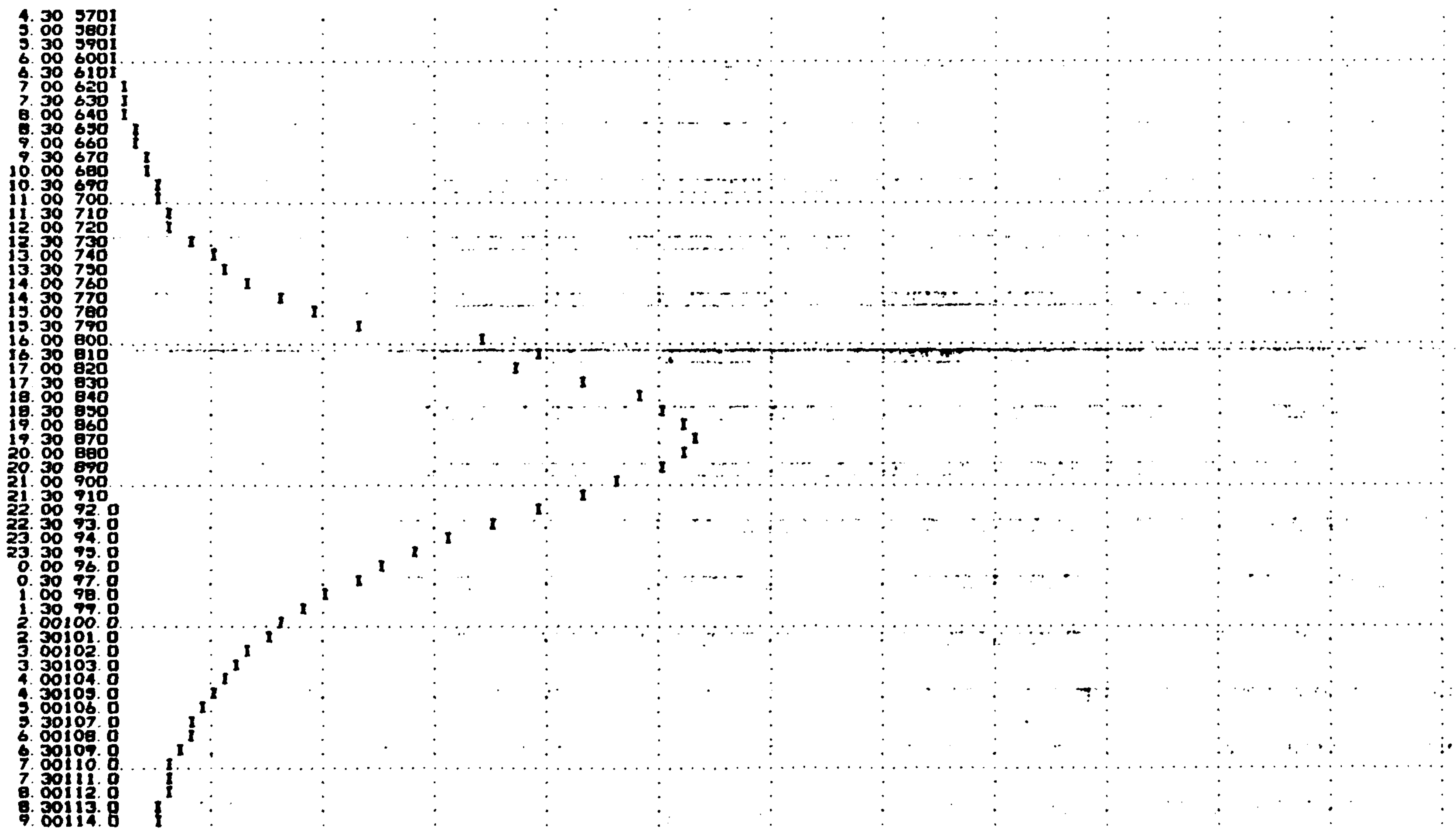
PEAK OUTFLOW IS 582. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	582.	558.	288.	115.	13817.
CMS	16.	16.	8.	3.	391.
INCHES		0.06	0.13	0.13	0.13
MM		1.62	3.34	3.34	3.34
AC-FT		277.	571.	571.	571.
THOUS CU M		341.	704.	704.	704.

OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    4000.    8000.   12000.   16000.   20000.   24000.    0.    0.    0.    0.    0.    0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  320I
16.30  330I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
21.30  43I
22.00  44I
22.30  45I
23.00  46I
23.30  47I
 0.00  48I
 0.30  49I
 1.00  50I
 1.30  51I
 2.00  52I
 2.30  53I
 3.00  540I
 3.30  550I
 4.00  560I
```


4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 810
17.00 820
17.30 830
18.00 840
18.30 850
19.00 860
19.30 870
20.00 880
20.30 890
21.00 900
21.30 910
22.00 92.0
22.30 93.0
23.00 94.0
23.30 95.0
0.00 96.0
0.30 97.0
1.00 98.0
1.30 99.0
2.00100.0
2.30101.0
3.00102.0
3.30103.0
4.00104.0
4.30105.0
5.00106.0
5.30107.0
6.00108.0
6.30109.0
7.00110.0
7.30111.0
8.00112.0
8.30113.0
9.00114.0

```
 9.30115.0   I
10.00116.0   I
10.30117.0  I
11.00118.0  I
11.30119.0  I
12.00120.0 .I.............................................................
```

OVN

STATION 1, PLAN 1, RATIO 4

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	1.	4.	7.	21.	44.	72.	109.	149.
189.	228.	283.	320.	346.	373.	402.	426.	448.	467.
484.	502.	518.	532.	545.	556.	566.	575.	583.	590.
597.	603.	609.	614.	618.	623.	627.	630.	633.	636.

STORAGE

20441.	20442.	20443.	20444.	20445.	20446.	20447.	20448.	20450.	20451.
20452.	20453.	20454.	20455.	20456.	20457.	20458.	20459.	20460.	20461.
20462.	20463.	20464.	20465.	20468.	20471.	20475.	20479.	20485.	20490.
20496.	20507.	20522.	20531.	20537.	20542.	20546.	20548.	20550.	20553.
20555.	20557.	20558.	20559.	20560.	20561.	20562.	20563.	20565.	20570.
20576.	20582.	20590.	20597.	20606.	20615.	20626.	20638.	20650.	20664.
20681.	20706.	20735.	20770.	20811.	20860.	20917.	20984.	21060.	21145.
21239.	21340.	21460.	21613.	21795.	22007.	22256.	22556.	22914.	23404.
24035.	24689.	25373.	26149.	26988.	27865.	28761.	29655.	30520.	31338.
32093.	32783.	33404.	33961.	34458.	34902.	35298.	35650.	35964.	36243.
36491.	36712.	36909.	37085.	37242.	37382.	37506.	37618.	37718.	37809.
37891.	37966.	38035.	38099.	38157.	38211.	38261.	38300.	38336.	38370.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2
1190.2	1190.2	1190.2	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7
1190.8	1191.0	1191.1	1191.3	1191.5	1191.7	1191.9	1192.1	1192.3	1192.4
1192.6	1192.7	1192.9	1193.0	1193.1	1193.2	1193.3	1193.3	1193.4	1193.5
1193.5	1193.6	1193.6	1193.6	1193.7	1193.7	1193.7	1193.7	1193.8	1193.8
1193.8	1193.8	1193.8	1193.8	1193.9	1193.9	1193.9	1193.9	1193.9	1193.9

PEAK OUTFLOW IS 636. AT TIME 60.00 HOURS

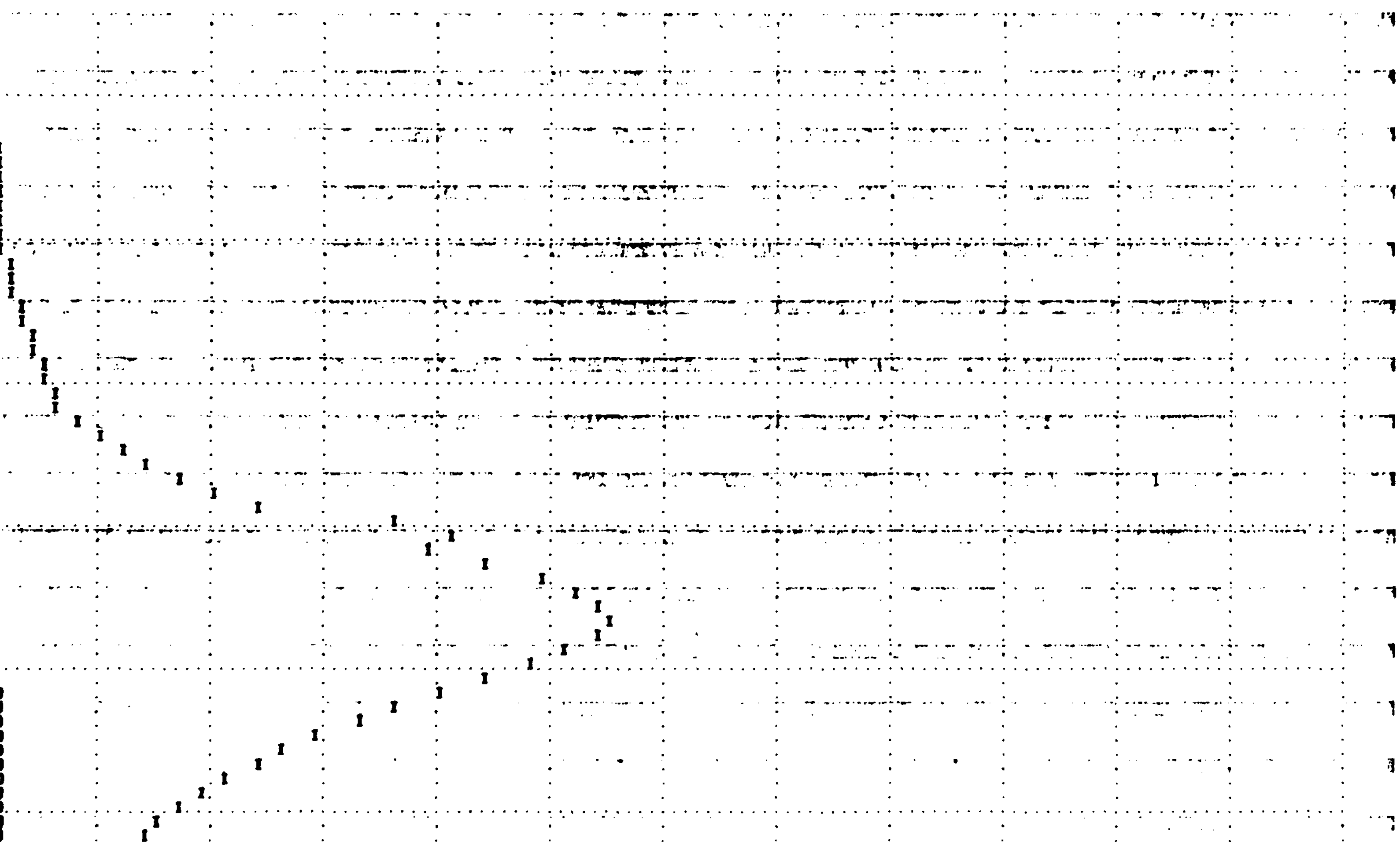
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	636.	611.	317.	127.	15211.
CMS	18.	17.	9.	4.	431.
INCHES		0.07	0.14	0.14	0.14
MM		1.77	3.68	3.68	3.68
AC-FT		303.	629.	629.	629.
THOUS CU M		374.	775.	775.	775.

OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    4000.    8000.   12000.   16000.   20000.   24000.      0.      0.      0.      0.      0.      0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  320I
16.30  330I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
21.30  43I
22.00  44I
```

22.30	45I
23.00	46I
23.30	47I
0.00	48I
0.30	49I
1.00	50I
1.30	51I
2.00	52I
2.30	53I
3.00	540I
3.30	550I
4.00	560I
4.30	570I
5.00	580I
5.30	590I
6.00	600I
6.30	610I
7.00	620
7.30	630
8.00	640
8.30	650
9.00	660
9.30	670
10.00	680
10.30	690
11.00	700
11.30	710
12.00	720
12.30	730
13.00	740
13.30	750
14.00	760
14.30	770
15.00	780
15.30	790
16.00	800
16.30	810
17.00	820
17.30	830
18.00	840
18.30	850
19.00	860
19.30	870
20.00	880
20.30	890
21.00	900
21.30	910
22.00	92.0
22.30	93.0
23.00	94.0
23.30	95.0
0.00	96.0
0.30	97.0
1.00	98.0
1.30	99.0
2.00	100.0
2.30	101.0
3.00	102.0



```
 3.30103. O        I
 4.00104. O      I
 4.30105. O     I
 5.00106. O    I
 5.30107. O    I
 6.00108. O   I
 6.30109. O   I
 7.00110. O  I
  .30111. O I
 8.00112.  O I
 8.30113.  O I
 9.00114.  O I
 9.30115.  O I
10.00116.  O I
10.30117.  O I
11.00118.  O I
11.30119.  O I
12.00120.  O I
```

40VN*

STATION 1, PLAN 1, RATIO 5

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	1.	4.	8.	28.	52.	86.	127.	169.
214.	262.	317.	346.	380.	411.	439.	464.	487.	511.
531.	550.	566.	581.	594.	605.	616.	625.	633.	641.
647.	654.	659.	665.	669.	674.	678.	682.	686.	689.

STORAGE

20441.	20442.	20443.	20444.	20445.	20446.	20447.	20448.	20450.	20451.
20452.	20453.	20454.	20455.	20457.	20458.	20459.	20460.	20461.	20462.
20463.	20464.	20465.	20467.	20469.	20472.	20476.	20480.	20486.	20492.
20498.	20509.	20524.	20535.	20540.	20545.	20549.	20552.	20554.	20556.
20558.	20560.	20561.	20562.	20563.	20564.	20565.	20566.	20569.	20573.
20579.	20586.	20593.	20601.	20611.	20622.	20633.	20645.	20658.	20672.
20690.	20715.	20746.	20782.	20824.	20875.	20939.	21004.	21084.	21172.
21270.	21375.	21499.	21657.	21846.	22065.	22324.	22635.	23007.	23516.
24170.	24848.	25558.	26361.	27231.	28141.	29071.	29998.	30894.	31741.
32524.	33238.	33882.	34459.	34974.	35433.	35841.	36206.	36531.	36819.
37075.	37304.	37507.	37689.	37851.	37994.	38122.	38236.	38340.	38433.
38517.	38594.	38665.	38730.	38789.	38844.	38894.	38941.	38984.	39023.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2
1190.2	1190.2	1190.2	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7
1190.9	1191.0	1191.2	1191.4	1191.6	1191.8	1192.0	1192.1	1192.3	1192.5
1192.7	1192.8	1193.0	1193.1	1193.2	1193.3	1193.4	1193.4	1193.5	1193.6
1193.6	1193.7	1193.7	1193.8	1193.8	1193.8	1193.8	1193.9	1193.9	1193.9
1193.9	1193.9	1194.0	1194.0	1194.0	1194.0	1194.0	1194.0	1194.0	1194.0

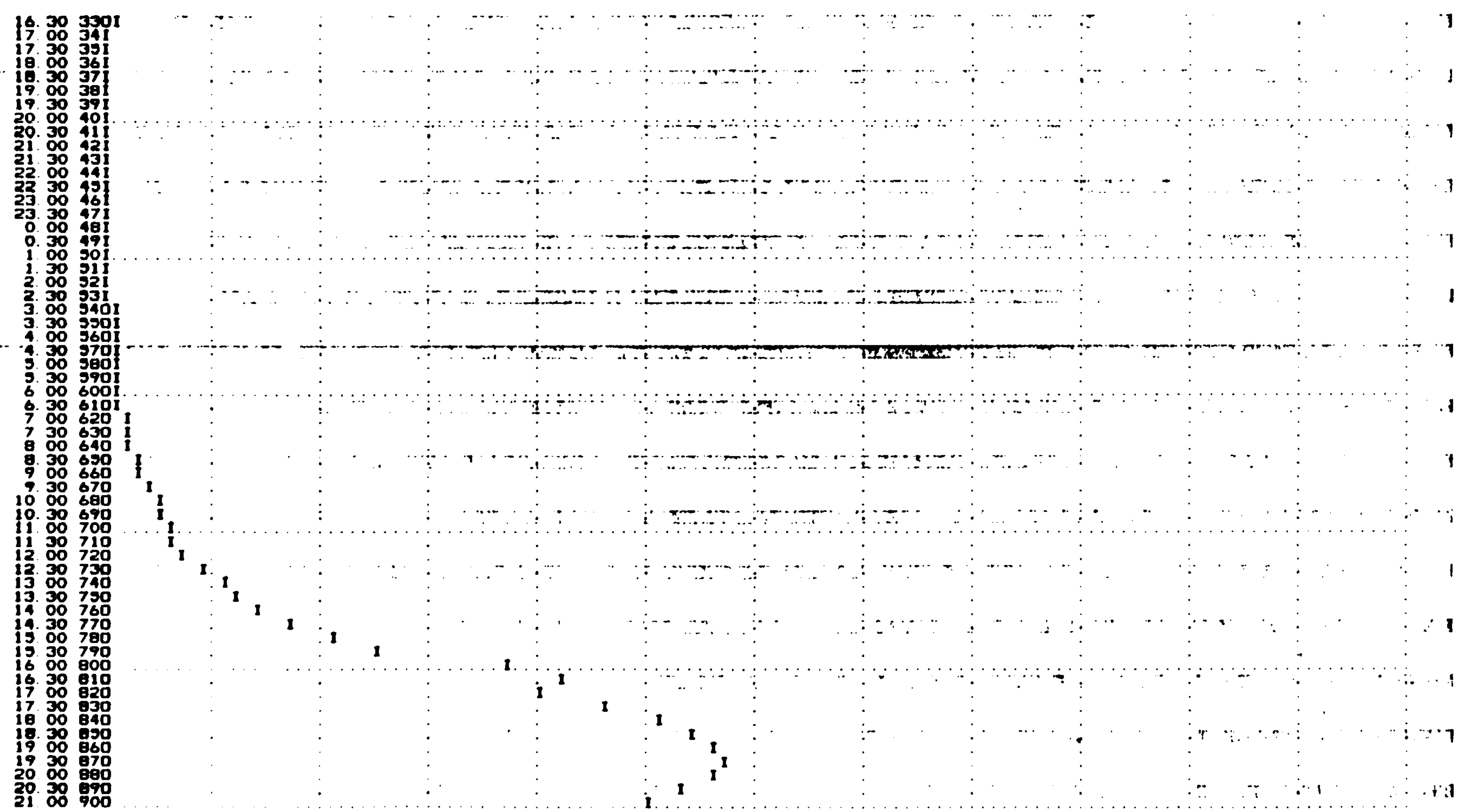
PEAK OUTFLOW IS 689. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	689.	662.	346.	138.	16606.
CMS	20.	19.	10.	4.	470.
INCHES		0.08	0.16	0.16	0.16
MM		1.92	4.02	4.02	4.02
AC-FT		328.	686.	686.	686.
THOUS CU M		405.	846.	846.	846.

OVF

STATION 1

```
                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.    4000.    8000.   12000.   16000.   20000.   24000.    0.    0.    0.    0.    0.    0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00 320I
```


16.30 330
17.00 34
17.30 35
18.00 36
18.30 37
19.00 38
19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 540
3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 810
17.00 820
17.30 830
18.00 840
18.30 850
19.00 860
19.30 870
20.00 880
20.30 890
21.00 900

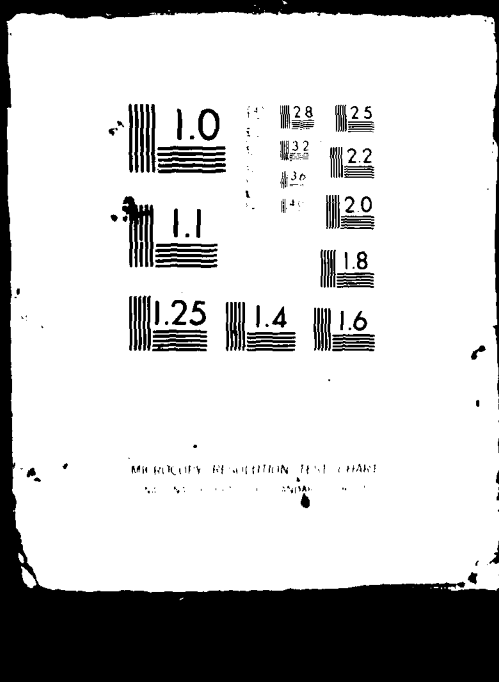
AD-A109 795 FLAHERTY-GIAVARA ASSOCIATES NEW HAVEN CT F/G 13/13
NATIONAL DAM SAFETY PROGRAM. OTSEGO LAKE DAM (INVENTORY NUMBER --ETC(U)
JUL 81 H C FLAHERTY DACW51-81-C-0006

UNCLASSIFIED NL

4 of 7

4 OF 7

AD-A109795



```
21.30 91. O                       I
22.00 92. O                     I
22.30 93. O                   I
23.00 94. O                 I
23.30 95. O               I
 0.00 96. O             I
 0.30 97. O            I
 1.00 98. O           I
 1.30 99. O          I
 2.00100. O         I
 2.30101. O        I
 3.00102. O       I
 3.30103. O      I
 4.00104. O     I
 4.30105. O    I
 5.00106.  O   I
 5.30107.  O  I
 6.00108.  O  I
 6.30109.  O  I
 7.00110.  O I
 7.30111.  O I
 8.00112.  O I
 8.30113.  O I
 9.00114.  OI
 9.30115.  OI
10.00116.  OI
10.30117.  OI
11.00118.  OI
11.30119.  OI
12.00120.  OI
```

OVN

STATION 1, PLAN 1, RATIO 6

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	2.	5.	11.	35.	61.	100.	146.	192.
238.	310.	340.	379.	415.	448.	477.	506.	533.	557.
578.	597.	614.	629.	643.	655.	665.	675.	684.	692.
700.	707.	713.	719.	724.	729.	734.	738.	742.	745.

STORAGE

20441.	20443.	20445.	20446.	20447.	20448.	20450.	20451.	20452.	20453.
20454.	20455.	20456.	20457.	20459.	20461.	20463.	20465.	20467.	20468.
20469.	20470.	20471.	20472.	20474.	20477.	20481.	20487.	20492.	20498.
20505.	20516.	20532.	20543.	20549.	20555.	20559.	20561.	20563.	20565.

20567.	20570.	20572.	20573.	20574.	20575.	20576.	20577.	20579.	20584.
20591.	20598.	20606.	20614.	20624.	20634.	20646.	20659.	20673.	20687.
20706.	20731.	20763.	20800.	20844.	20896.	20957.	21029.	21111.	21203.
21303.	21413.	21542.	21706.	21901.	22129.	22397.	22719.	23104.	23631.
24307.	25009.	25745.	26577.	27478.	28419.	29382.	30341.	31269.	32146.
32956.	33694.	34360.	34958.	35490.	35964.	36386.	36763.	37099.	37397.
37661.	37896.	38106.	38293.	38460.	38608.	38739.	38857.	38963.	39057.
39143.	39221.	39294.	39360.	39420.	39476.	39528.	39574.	39617.	39657.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	119C.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7
1190.9	1191.1	1191.2	1191.4	1191.6	1191.8	1192.0	1192.2	1192.4	1192.6
1192.8	1192.9	1193.1	1193.2	1193.3	1193.4	1193.5	1193.6	1193.6	1193.7
1193.8	1193.8	1193.8	1193.9	1193.9	1193.9	1194.0	1194.0	1194.0	1194.0
1194.1	1194.1	1194.1	1194.1	1194.1	1194.1	1194.1	1194.2	1194.2	1194.2

PEAK OUTFLOW IS 745. AT TIME 60.00 HOURS

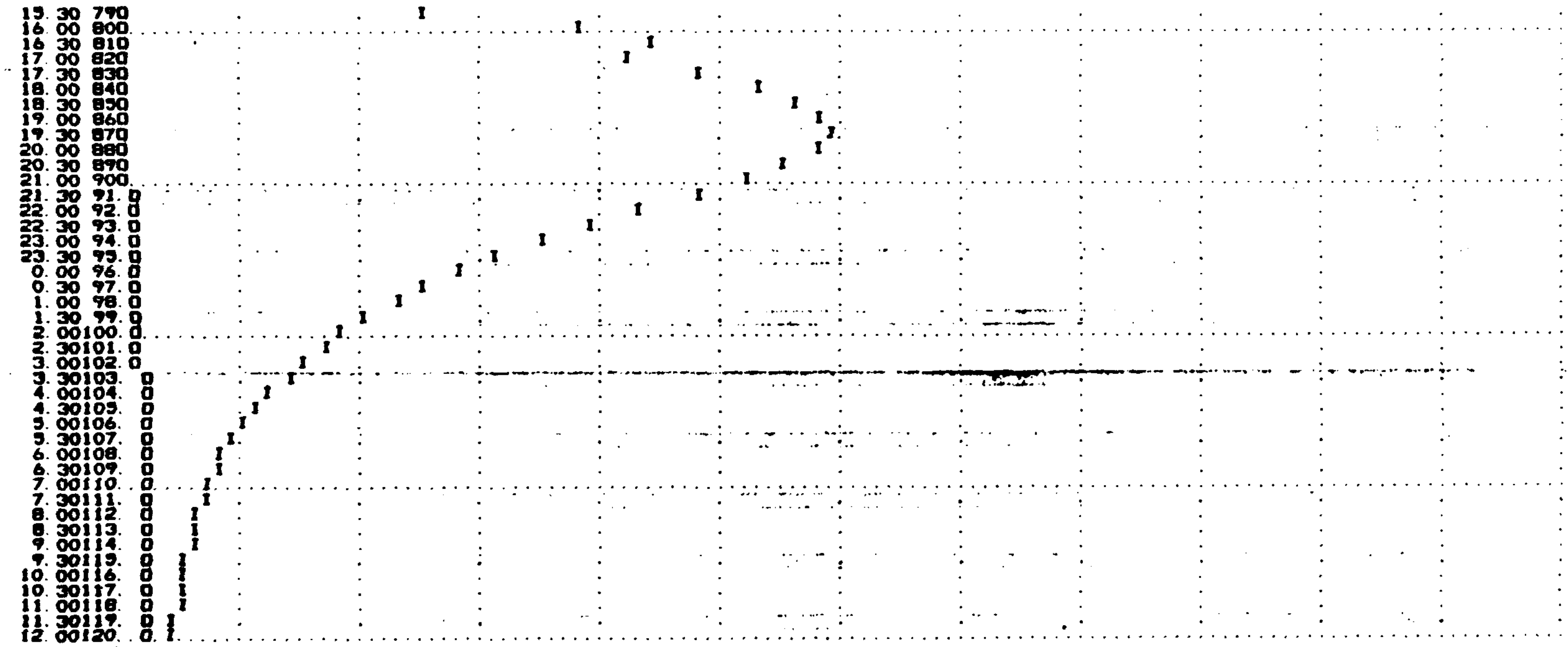
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	745.	716.	376.	151.	18067.
CMS	21.	20.	11.	4.	512.
INCHES		0.08	0.17	0.17	0.17
MM		2.08	4.37	4.37	4.37
AC-FT		355.	747.	747.	747.
THOUS CU M		438.	921.	921.	921.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.     4000.     8000.    12000.    16000.    20000.    24000.        0.        0.        0.        0.        0.        0.
  0.30   1I
  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I.
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
  9.00  18I
  9.30  19I
 10.00  20I.
```

```
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 320I
16.30 330I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
 0.00 48I
 0.30 49I
 1.00 50I
 1.30 51I
 2.00 52I
 2.30 530I
 3.00 540I
 3.30 550I
 4.00 560I
 4.30 570I
 5.00 580I
 5.30 590I
 6.00 600I
 6.30 610I
 7.00 620 I
 7.30 630 I
 8.00 640 I
 8.30 650  I
 9.00 660  I
 9.30 670   I
10.00 680    I
10.30 690    I
11.00 700     I
11.30 710     I
12.00 720      I
12.30 730        I
13.00 740          I
13.30 750            I
14.00 760              I
14.30 770                 I
15.00 780                    I
```



OVN

STATION 1, PLAN 1, RATIO 7

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	3.	6.	17.	42.	74.	117.	164.	215.
281.	328.	371.	413.	450.	484.	520.	551.	579.	604.
625.	645.	662.	678.	693.	707.	719.	729.	739.	747.
755.	765.	777.	788.	798.	807.	816.	823.	830.	837.

STORAGE

20442.	20444.	20446.	20448.	20450.	20451.	20452.	20453.	20454.	20455.
20456.	20457.	20458.	20460.	20462.	20464.	20467.	20469.	20471.	20473.
20474.	20475.	20476.	20477.	20479.	20484.	20488.	20493.	20498.	20505.
20512.	20524.	20540.	20550.	20557.	20562.	20566.	20570.	20572.	20574.
20576.	20578.	20580.	20582.	20583.	20584.	20586.	20587.	20589.	20594.
20600.	20608.	20615.	20624.	20633.	20644.	20656.	20668.	20682.	20697.
20716.	20743.	20776.	20814.	20860.	20914.	20977.	21052.	21137.	21231.
21335.	21448.	21582.	21752.	21955.	22189.	22468.	22800.	23198.	23743.
24443.	25170.	25931.	26791.	27724.	28697.	29693.	30685.	31644.	32550.
33387.	34150.	34838.	35455.	36004.	36494.	36931.	37320.	37666.	37973.
38246.	38488.	38703.	38895.	39066.	39218.	39353.	39473.	39581.	39678.
39765.	39845.	39918.	39985.	40046.	40101.	40152.	40197.	40239.	40278.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.3	1190.4	1190.5	1190.5	1190.6	1190.8
1190.9	1191.1	1191.3	1191.5	1191.7	1191.9	1192.1	1192.3	1192.5	1192.7
1192.9	1193.0	1193.2	1193.3	1193.4	1193.5	1193.6	1193.7	1193.8	1193.8
1193.9	1193.9	1194.0	1194.0	1194.0	1194.1	1194.1	1194.1	1194.2	1194.2
1194.2	1194.2	1194.2	1194.3	1194.3	1194.3	1194.3	1194.3	1194.4	1194.4

PEAK OUTFLOW IS 837. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	837.	786.	411.	165.	19741.
CMS	24.	22.	12.	5.	559.
INCHES		0.09	0.19	0.19	0.19
MM		2.28	4.78	4.78	4.78
AC-FT		390.	816.	816.	816.
THOUS CU M		481.	1006.	1006.	1006.

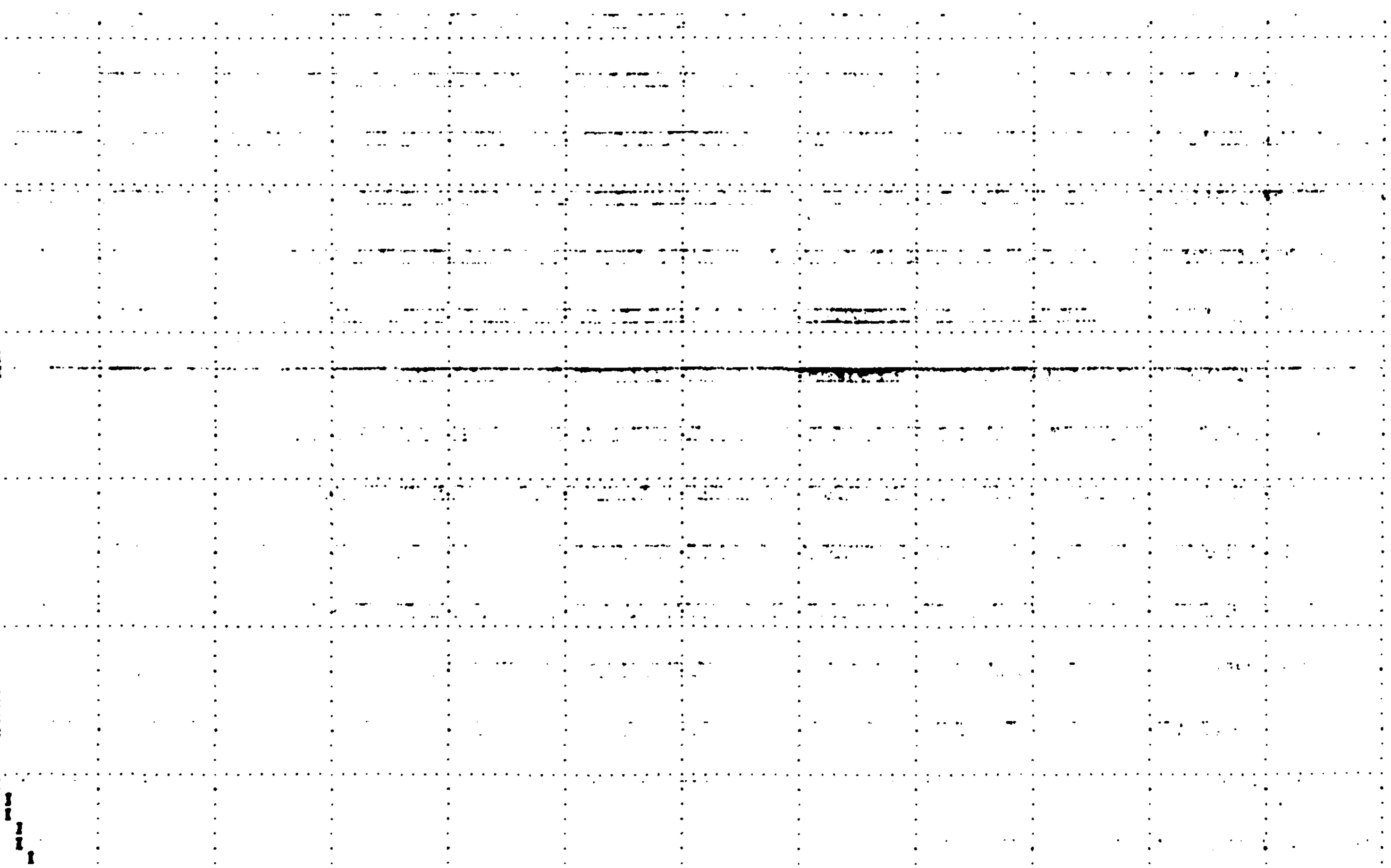
OVF

STATION 1

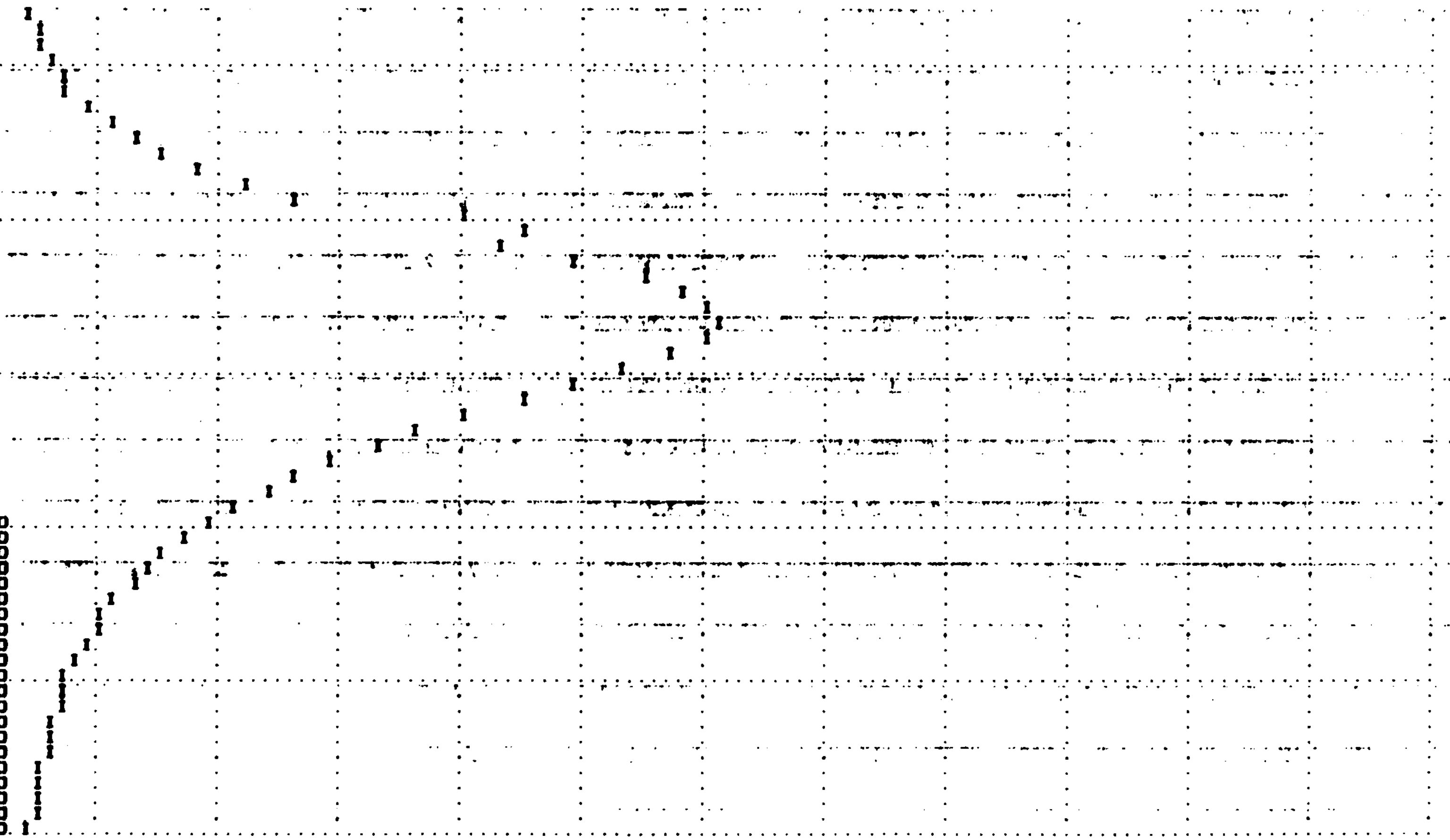
INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
        0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.        0.        0.        0.        0.        0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
```

4.30	9I
5.00	10I
5.30	11I
6.00	12I
6.30	13I
7.00	14I
7.30	15I
8.00	16I
8.30	17I
9.00	18I
9.30	19I
10.00	20I
10.30	21I
11.00	22I
11.30	23I
12.00	24I
12.30	25I
13.00	26I
13.30	27I
14.00	28I
14.30	29I
15.00	30I
15.30	31I
16.00	320I
16.30	330I
17.00	34I
17.30	35I
18.00	36I
18.30	37I
19.00	38I
19.30	39I
20.00	40I
20.30	41I
21.00	42I
21.30	43I
22.00	44I
22.30	45I
23.00	46I
23.30	47I
0.00	48I
0.30	49I
1.00	50I
1.30	51I
2.00	52I
2.30	530I
3.00	540I
3.30	550I
4.00	560I
4.30	570I
5.00	580I
5.30	590I
6.00	600I
6.30	610I
7.00	620 I
7.30	630 I
8.00	640 I
8.30	650 I
9.00	660 I



9.30	670
10.00	680
10.30	690
11.00	700.
11.30	710
12.00	720
12.30	730
13.00	740
13.30	750
14.00	760
14.30	770
15.00	780
15.30	790
16.00	800.
16.30	810
17.00	820
17.30	830
18.00	840
18.30	850
19.00	860
19.30	870
20.00	880
20.30	890
21.00	90.0.
21.30	91.0
22.00	92.0
22.30	93.0
23.00	94.0
23.30	95.0
0.00	96.0
0.30	97.0
1.00	98.0
1.30	99.0
2.00	100. 0.
2.30	101. 0
3.00	102. 0
3.30	103. 0
4.00	104. 0
4.30	105. 0
5.00	106. 0
5.30	107. 0
6.00	108. 0
6.30	109. 0
7.00	110. 0.
7.30	111. 0
8.00	112. 0
8.30	113. 0
9.00	114. 0
9.30	115. 0
10.00	116. 0
10.30	117. 0
11.00	118. 0
11.30	119. 0
12.00	120. 0.



DVN

STATION 1, PLAN 1, RATIO 8

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	3.
8.	33.	71.	135.	218.	332.	441.	566.	695.	886.
1114.	1396.	1659.	1886.	2089.	2267.	2424.	2561.	2680.	2784.
2874.	2951.	3017.	3074.	3122.	3163.	3196.	3224.	3247.	3266.
3281.	3293.	3302.	3309.	3313.	3316.	3317.	3316.	3314.	3310.

STORAGE

20443.	20446.	20450.	20453.	20456.	20459.	20462.	20464.	20467.	20469.
20471.	20473.	20475.	20478.	20481.	20485.	20488.	20491.	20494.	20497.
20501.	20504.	20507.	20510.	20514.	20521.	20529.	20538.	20547.	20558.
20570.	20590.	20616.	20635.	20646.	20656.	20663.	20668.	20673.	20677.
20680.	20683.	20686.	20690.	20693.	20696.	20698.	20700.	20704.	20713.
20725.	20737.	20751.	20766.	20783.	20801.	20821.	20844.	20867.	20892.
20924.	20970.	21026.	21091.	21168.	21258.	21365.	21489.	21632.	21790.
21964.	22152.	22375.	22659.	22996.	23388.	23851.	24407.	25071.	25980.
27147.	28358.	29625.	31055.	32602.	34216.	35865.	37504.	39087.	40579.
41951.	43193.	44302.	45284.	46149.	46909.	47576.	48158.	48665.	49105.
49485.	49812.	50094.	50335.	50540.	50711.	50854.	50972.	51069.	51148.
51211.	51260.	51300.	51329.	51349.	51360.	51363.	51359.	51350.	51335.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.2	1190.2	1190.2	1190.2	1190.3	1190.3
1190.4	1190.4	1190.4	1190.5	1190.6	1190.7	1190.8	1190.9	1191.1	1191.3
1191.3	1191.8	1192.1	1192.4	1192.7	1193.0	1193.4	1193.7	1194.1	1194.5
1195.0	1195.4	1195.8	1196.1	1196.4	1196.7	1196.9	1197.2	1197.3	1197.5
1197.6	1197.7	1197.8	1197.9	1198.0	1198.1	1198.1	1198.1	1198.2	1198.2
1198.2	1198.2	1198.3	1198.3	1198.3	1198.3	1198.3	1198.3	1198.3	1198.3

PEAK OUTFLOW IS 3317. AT TIME 58.50 HOURS

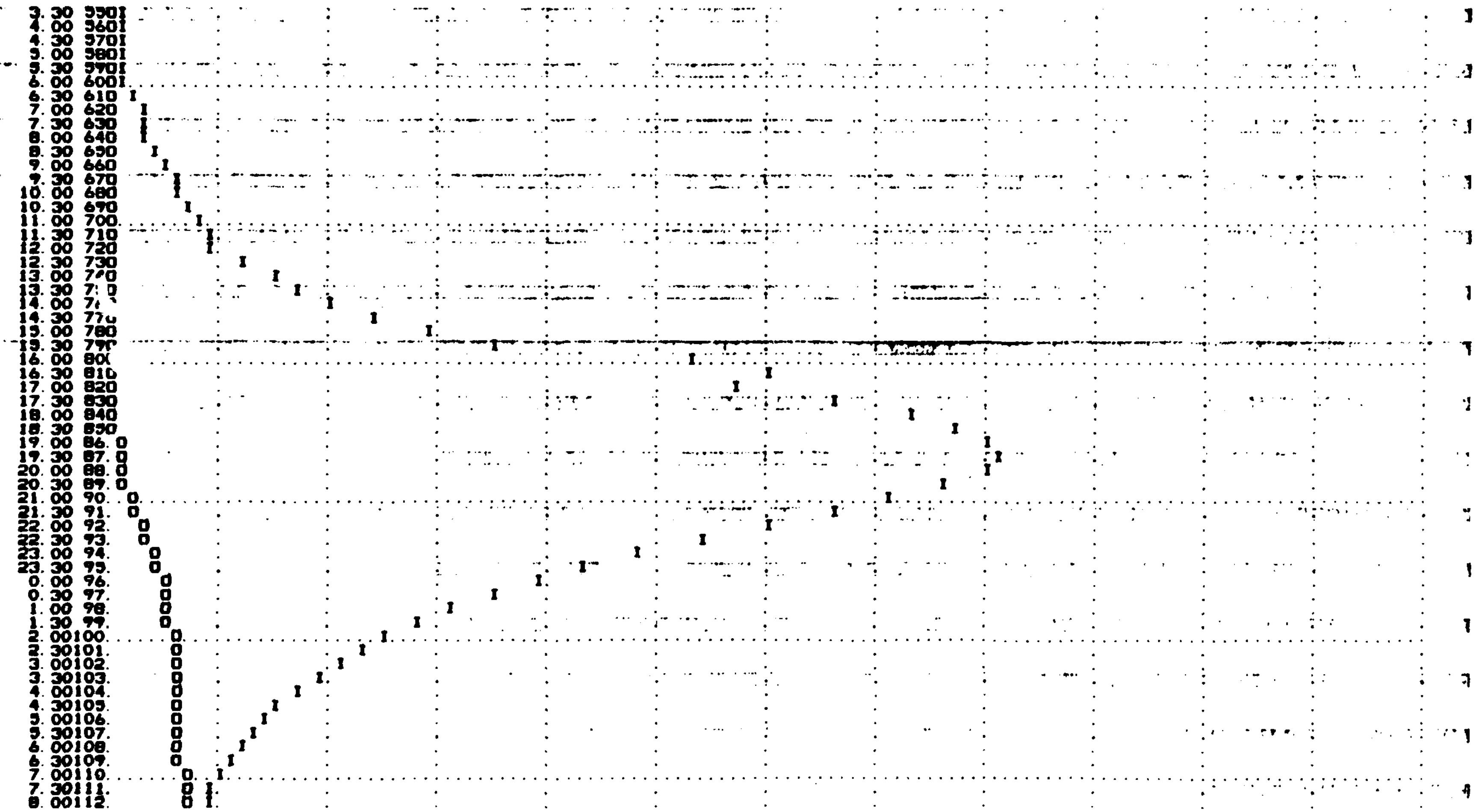
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3317.	3295.	1808.	723.	86793.
CMS	94.	93.	51.	20.	2458.
INCHES		0.38	0.83	0.83	0.83
MM		9.57	21.00	21.00	21.00
AC-FT		1634.	3587.	3587.	3587.
THOUS CU M		2015.	4424.	4424.	4424.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
             0.     5000.    10000.    15000.    20000.    25000.    30000.    35000.    40000.    45000.        0.        0.        0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29OI
15.00  30OI
15.30  31OI
16.00  32OI
16.30  33OI
17.00  34OI
17.30  35OI
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
21.30  43I
22.00  44I
22.30  45I
23.00  46I
23.30  47I
 0.00  48I
 0.30  49I
 1.00  50OI
 1.30  51OI
 2.00  52OI
 2.30  53OI
 3.00  54OI
```


3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00
13.30
14.00
14.30
15.00 780
15.30
16.00
16.30 810
17.00 820
17.30 830
18.00 840
18.30 850
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.

8.30113.	OI
9.00114.	OI
9.30115.	I
10.00116.	I
10.30117.	I
11.00118.	IO
11.30119.	IO
12.00120.	IO

OVN

STATION 1, PLAN 1, RATIO 9

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	1.	5.	8.	35.	75.	159.
316.	469.	670.	1060.	1744.	2487.	3244.	3994.	4826.	5800.
6685.	7477.	8175.	8783.	9309.	9761.	10147.	10474.	10749.	10977.
11163.	11313.	11431.	11521.	11587.	11629.	11653.	11660.	11653.	11634.
11605.	11568.	11524.	11474.	11419.	11359.	11294.	11225.	11153.	11079.

STORAGE

20446.	20453.	20459.	20465.	20472.	20478.	20485.	20490.	20495.	20501.
20506.	20511.	20516.	20523.	20530.	20538.	20545.	20552.	20558.	20564.
20571.	20577.	20583.	20590.	20598.	20612.	20629.	20647.	20667.	20690.
20714.	20754.	20809.	20847.	20868.	20887.	20902.	20913.	20921.	20930.
20937.	20945.	20952.	20958.	20965.	20971.	20976.	20982.	20991.	21009.
21033.	21058.	21086.	21117.	21151.	21188.	21229.	21274.	21322.	21373.
21437.	21529.	21641.	21771.	21924.	22105.	22320.	22570.	22854.	23172.
23521.	23898.	24344.	24910.	25587.	26370.	27297.	28407.	29733.	31547.
33874.	36281.	38776.	41630.	44682.	47844.	51055.	54227.	57265.	60093.
62663.	64958.	66979.	68740.	70261.	71567.	72681.	73626.	74419.	75078.
75615.	76046.	76386.	76647.	76835.	76958.	77025.	77046.	77027.	76972.
76888.	76781.	76655.	76511.	76352.	76178.	75990.	75792.	75585.	75371.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2
1190.2	1190.3	1190.3	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.6
1190.7	1190.8	1190.9	1191.0	1191.2	1191.4	1191.6	1191.8	1192.1	1192.5
1193.0	1193.5	1194.0	1194.8	1195.9	1197.0	1198.2	1199.3	1200.4	1201.4
1202.3	1203.1	1203.8	1204.4	1205.0	1205.4	1205.8	1206.2	1206.4	1206.7
1206.9	1207.0	1207.1	1207.2	1207.3	1207.3	1207.4	1207.4	1207.4	1207.3
1207.3	1207.3	1207.2	1207.2	1207.1	1207.1	1207.0	1206.9	1206.8	1206.8

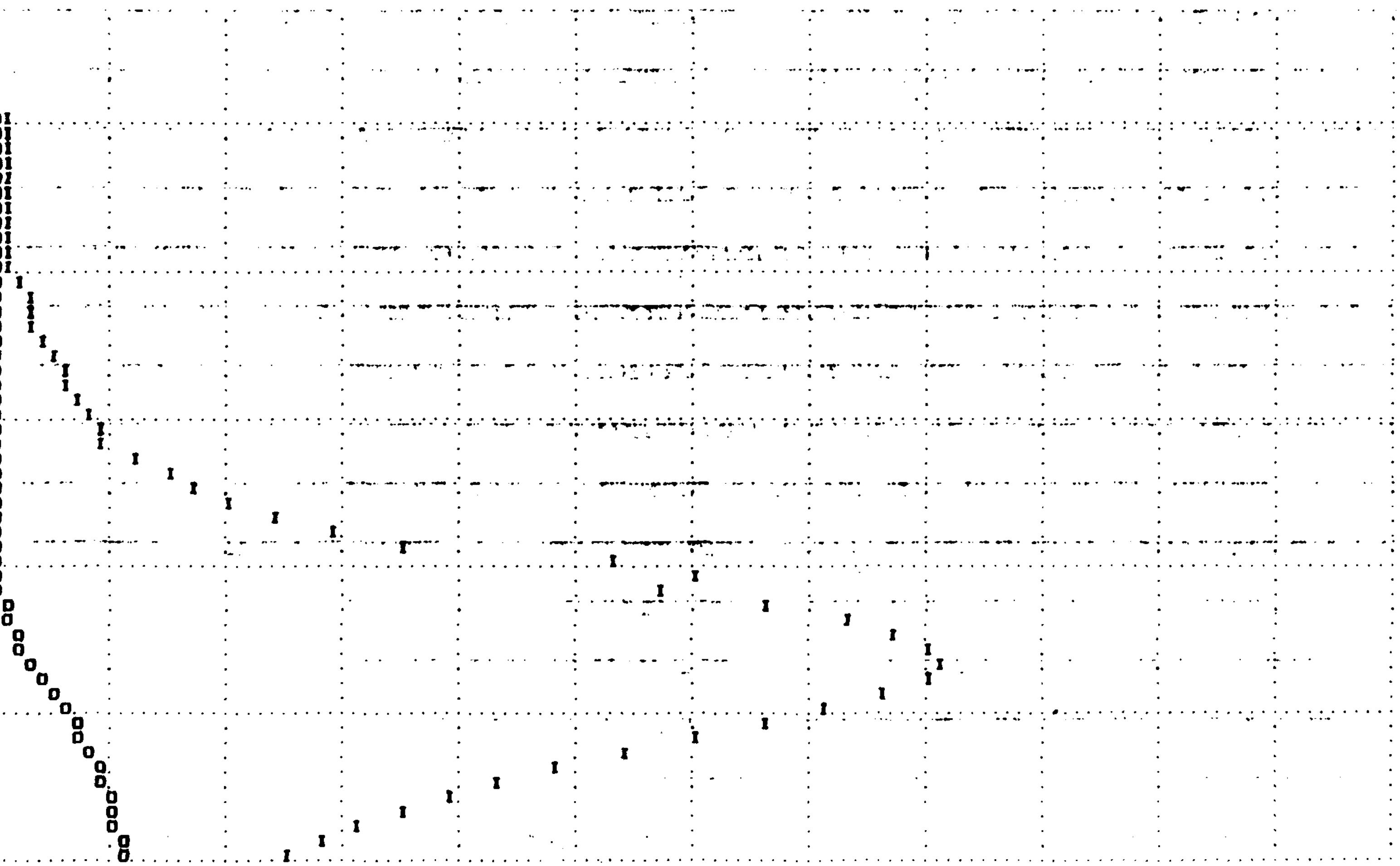
```
PEAK OUTFLOW IS     11660. AT TIME  54.00 HOURS

                                  PEAK    6-HOUR    24-HOUR    72-HOUR   TOTAL VOLUME
                         CFS     11660.   11578.     7101.      2840.       340840.
                         CMS       330.     328.      201.        80.         9651.
                      INCHES                1.32      3.29       3.29          3.29
                          MM               33.62     82.47      82.47         82.47
                       AC-FT                5741.    14084.     14084.        14084.
                   THOUS CU M               7082.    17373.     17373.        17373.

*OVF*
                                              STATION     1

                                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
              0.     10000.    20000.    30000.    40000.    50000.    60000.    70000.    80000.    90000.    0.    0.    0.
    0.30   1I
    1.00   2I
    1.30   3I
    2.00   4I
    2.30   5I
    3.00   6I
    3.30   7I
    4.00   8I
    4.30   9I
    5.00  10I
    5.30  11I
    6.00  12I
    6.30  13I
    7.00  14I
    7.30  15I
    8.00  16I
    8.30  17I
    9.00  18I
    9.30  19I
   10.00  20I
   10.30  21I
   11.00  22I
   11.30  23I
   12.00  24I
   12.30  25I
   13.00  26I
   13.30  27I
   14.00  28I
   14.30  29OI
   15.00  30OI
   15.30  31OI
   16.00  32OI
   16.30  33OI
   17.00  34OI
   17.30  35OI
   18.00  36I
   18.30  37I
   19.00  38I
   19.30  39I
   20.00  40I
   20.30  41I
   21.00  42I
```

21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50
1.30	51
2.00	52
2.30	53
3.00	54
3.30	55
4.00	56
4.30	57
5.00	58
5.30	59
6.00	60
6.30	61
7.00	62
7.30	63
8.00	64
8.30	65
9.00	66
9.30	67
10.00	68
10.30	69
11.00	70
11.30	71
12.00	72
12.30	73
13.00	74
13.30	75
14.00	76
14.30	77
15.00	78
15.30	79
16.00	80
16.30	81
17.00	82
17.30	83
18.00	84
18.30	85
19.00	86
19.30	87
20.00	88
20.30	89
21.00	90
21.30	91
22.00	92
22.30	93
23.00	94
23.30	95
0.00	96
0.30	97
1.00	98
1.30	99
2.00	100



```
 2.30101.        O    I
 3.00102.        O   I
 3.30103.        O  I
 4.00104.         O I
 4.30105.         O I
 5.00106.         OI
 5.30107.         OI
 6.00108.         I
 6.30109.       IO
 7.00110.       I.O
 7.30111.      I  O
 8.00112.      I  O
 8.30113.     I   O
 9.00114.     I  O
 9.30115.    I   O
10.00116.    I   O
10.30117.    I   O
11.00118.   I    O
11.30119.   I    O
12.00120.   I    O

*DVN*
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**********   **********   **********   **********   **********

PEAK FLOW AND STORAGE (END OF PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND (CUBIC METERS PER SECOND)
AREA IN SQUARE MILES (SQUARE KILOMETERS)

OPERATION	STATION	AREA	PLAN	RATIO 1 0.20	RATIO 2 0.25	RATIO 3 0.26	RATIO 4 0.27	RATIO 5 0.28	RATIO 6 0.29	RATIO 7 0.30	RATIO 8 0.50	RATIO 9 1.00
				RATIOS APPLIED TO FLOWS								
HYDROGRAPH AT	1	23.84	1	5064.	6330.	6583.	6837.	7090.	7343.	7596.	12660.	25320.
	(	61.74)	(	143.40)(	179.25)(	186.42)(	193.59)(	200.76)(	207.93)(	215.10)(	358.50)(	716.99)
HYDROGRAPH AT	1	13.03	1	3007.	3759.	3909.	4059.	4210.	4360.	4510.	7517.	15034.
	(	33.75)	(	85.15)(	106.43)(	110.69)(	114.95)(	119.20)(	123.46)(	127.72)(	212.86)(	425.73)
2 COMBINED	1	36.87	1	7994.	9992.	10392.	10792.	11191.	11591.	11991.	19984.	39969.
	(	95.49)	(	226.36)(	282.95)(	294.26)(	305.58)(	316.90)(	328.22)(	339.54)(	565.89)(	1131.79)
HYDROGRAPH AT	1	17.47	1	3105.	3881.	4037.	4192.	4347.	4503.	4658.	7763.	15526.
	(	45.25)	(	87.93)(	109.91)(	114.31)(	118.70)(	123.10)(	127.50)(	131.89)(	219.82)(	439.65)
2 COMBINED	1	54.34	1	10959.	13698.	14246.	14794.	15342.	15890.	16438.	27396.	54793.
	(	140.74)	(	310.31)(	387.89)(	403.41)(	418.92)(	434.44)(	449.95)(	465.47)(	775.78)(	1551.56)
HYDROGRAPH AT	1	4.77	1	1088.	1360.	1414.	1468.	1523.	1577.	1631.	2719.	5438.
	(	12.35)	(	30.80)(	38.50)(	40.04)(	41.58)(	43.12)(	44.66)(	46.20)(	77.00)(	153.99)

2 COMBINED	1	59.11	1	12017.	15021.	15622.	16223.	16824.	17425.	18025.	30042.	60085.
	(	153.09)	(	340.28)(	425.35)(	442.37)(	459.38)(	476.39)(	493.41)(	510.42)(	850.70)(	1701.41)
HYDROGRAPH AT	1	5.56	1	1475.	1843.	1917.	1991.	2064.	2138.	2212.	3687.	7373.
	(	14.40)	(	41.76)(	52.20)(	54.28)(	56.37)(	58.46)(	60.55)(	62.64)(	104.39)(	208.78)
2 COMBINED	1	64.67	1	13265.	16582.	17245.	17908.	18572.	19235.	19898.	33164.	66327.
	(	167.49)	(	375.64)(	469.54)(	488.33)(	507.11)(	525.89)(	544.67)(	563.45)(	939.09)(	1878.18)
HYDROGRAPH AT	1	10.33	1	2777.	3471.	3610.	3749.	3887.	4026.	4165.	6942.	13883.
	(	26.75)	(	78.63)(	98.28)(	102.22)(	106.15)(	110.08)(	114.01)(	117.94)(	196.57)(	393.14)
2 COMBINED	1	75.00	1	15832.	19790.	20581.	21373.	22165.	22956.	23748.	39580.	79159.
	(	194.25)	(	448.31)(	560.38)(	582.80)(	605.21)(	627.63)(	650.05)(	672.46)(	1120.77)(	2241.53)
HYDROGRAPH AT	1	6.38	1	4153.	5191.	5399.	5606.	5814.	6022.	6229.	10382.	20764.
	(	16.52)	(	117.60)(	147.00)(	152.88)(	158.76)(	164.63)(	170.51)(	176.39)(	293.99)(	587.98)
2 COMBINED	1	81.38	1	16223.	20278.	21089.	21901.	22712.	23523.	24334.	40557.	81113.
	(	210.77)	(	459.38)(	574.22)(	597.19)(	620.16)(	643.12)(	666.09)(	689.06)(	1148.44)(	2296.87)
ROUTED TO	1	81.38	1	318.	533.	582.	636.	689.	745.	837.	3317.	11660.
	(	210.77)	(	9.01)(	15.09)(	16.48)(	18.00)(	19.52)(	21.10)(	23.69)(	93.92)(	330.17)

SUMMARY OF DAM SAFETY ANALYSIS

PLAN 1

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	1190.00	1191.10	1194.20
STORAGE	20440.	25225.	39800.
OUTFLOW	0.	0.	758.

RATIO OF PMF	MAXIMUM RESERVOIR W.S.ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
0.20	1192.97	0.00	33917.	318.	0.00	60.00	0.00
0.25	1193.63	0.00	37096.	533.	0.00	60.00	0.00
0.26	1193.76	0.00	37707.	582.	0.00	60.00	0.00
0.27	1193.90	0.00	38370.	636.	0.00	60.00	0.00
0.28	1194.04	0.00	39023.	689.	0.00	60.00	0.00
0.29	1194.17	0.00	39657.	745.	0.00	60.00	0.00
0.30	1194.37	0.17	40278.	837.	4.50	60.00	0.00
0.50	1198.29	4.09	51363.	3317.	15.50	58.50	0.00
1.00	1207.36	13.16	77046.	11660.	18.50	54.00	0.00

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**********************************
FLOOD HYDROGRAPH PACKAGE (HEC-1)
DAM SAFETY VERSION      JULY 1978
  LAST MODIFICATION  26 FEB 79
**********************************
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HEC-1 FLOOD HYDROGRAPH COMPUTATIONS

(WITHOUT FLASHBOARDS IN PLACE)

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FLAHERTY GIAVARA ASSOCIATES, P.C.
 ***********************************
 FLOOD HYDROGRAPH PACKAGE (HEC-1)
 DAM SAFETY VERSION       JULY 1978
   LAST MODIFICATION  26 FEB 79
 ***********************************
A1   NATIONAL DAM INSPECTION PROGRAM, PHASE I REPORT, CORPS OF ENGINEERS - NEW YORK DISTRICT
A2   DAM INVENTORY NO. NY 361, OTSEGO LAKE DAM (WITHOUT FLASHBOARDS), CHENANGO COUNTY, NEW YORK, APRIL 27, 1981
A3   PREPARED BY FLAHERTY GIAVARA ASSOCIATES, P.C., ONE COLUMBUS PLAZA, NEW HAVEN, CONNECTICUT
B     120       0      30       0       0       0       0       2       0       0
B1      5
J       1       9       1
J1   0.20    0.29    0.30    0.31    0.32    0.33    0.34    0.50    1.00
K       0       1                       0       0       1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 1
M       1       1   23.84                       0                       1
P       0    19.3      86     100     112     119
T                                                       1     0.1             0.01
W    4.61    0.63
X    -2.0   -0.10     1.5
K       0       1                       0       0       1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 2
M       1       1   13.03                       0                       1
P       0    19.3      86     100     112     119
T                                                       1     0.1             0.01
W    3.87    0.63
X    -2.0   -0.10     1.5
K       2       1                       0       0       1       0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0       1                       0       0       1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 3
M       1       1   17.47                       0                       1
P       0    19.3      86     100     112     119
T                                                       1     0.1             0.01
W    5.76    0.63
X    -2.0   -0.10     1.5
K       2       1                       0       0       1       0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0       1                       0       0       1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 4
M       1       1    4.77                       0
P       0    19.3      86     100     112     119
T                                                       1     0.1             0.01
W    3.87    0.63
X    -2.0   -0.10     1.5
K       2       1                       0       0       1       0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0       1                       0       0       1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 5
M       1       1    5.56                       0                       1
P       0    19.3      86     100     112     119
T                                                       1     0.1            0.005
W    3.05    0.63
X    -2.0   -0.10     1.5
K       2       1                       0       0       1       0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K       0       1                       0       0       1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 6
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M          1        1    10.33                           0                                 1
P          0     19.3       86      100      112       119        1     0.1                0.02
T
W       3.00     0.63
X       -2.0    -0.10      1.5
K          2        1                          0         0        1       0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K          0        1                          0         0        1       0
K1   INFLOW HYDROGRAPH - SUBWATERSHED NO. 7 (OTSEGO LAKE)
M          1        1     6.38                           0                       1
P          0     19.3       86      100      112       119        0       0                1
T
W          0     0.63
X       -2.0    -0.10      1.5
K          2        1                          0         0        1       0
K1   COMBINE 2 INFLOW HYDROGRAPHS
K          1        1                          0         0        1       0
K1   OTSEGO LAKE ROUTING - MODIFIED PULS METHOD
Y                                    1        1
Y1         1                                                      0      -1
Y41190.0   1190.5   1191.0   1191.5   1192.0   1192.2   1192.5   1192.8   1192.9   1193.0
Y41193.1   1193.5   1194.0   1194.2   1195.0   1200.0   1208.0   1210.0
Y5         0     25.4    171.8    315.5    485.8    560.4    678.9    732.2    783.3    812.7
Y5 857.5   1052.8   1317.3   1428.1   1897.2   5611.0  13734.1  16108.5
$S 20440    27400    39800   112820
$E1190.0   1191.6   1194.2   1220.0
$$1190.0
$D1194.2      2.5      1.5        2
K         99
             PREVIEW OF SEQUENCE OF STREAM NETWORK CALCULATIONS
                       RUNOFF HYDROGRAPH AT          1
                       RUNOFF HYDROGRAPH AT          1
                       COMBINE  2 HYDROGRAPHS AT     1
                       RUNOFF HYDROGRAPH AT          1
                       COMBINE  2 HYDROGRAPHS AT     1
                       RUNOFF HYDROGRAPH AT          1
                       COMBINE  2 HYDROGRAPHS AT     1
                       RUNOFF HYDROGRAPH AT          1
                       COMBINE  2 HYDROGRAPHS AT     1
                       RUNOFF HYDROGRAPH AT          1
                       COMBINE  2 HYDROGRAPHS AT     1
                       RUNOFF HYDROGRAPH AT          1
                       COMBINE  2 HYDROGRAPHS AT     1
                       ROUTE HYDROGRAPH TO           1
                       END OF NETWORK

**************************************
FLOOD HYDROGRAPH PACKAGE (HEC-1)
DAM SAFETY VERSION        JULY 1978
  LAST MODIFICATION  26 FEB 79
**************************************

RUN  DATE: 8/21/
     TIME:  1:28 PM
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                    PREPARED BY FLAHERTY GIAVARA ASSOCIATES, P.C., ONE COLUMBUS PLAZA, NEW HAVEN, CONNECTICUT

                                          JOB SPECIFICATION
             NQ     NHR    NMIN    IDAY     IHR    IMIN   METRC    IPLT    IPRT   NSTAN
            120       0      30       0       0       0       0       2       0       0
                                   JOPER     NWT   LROPT   TRACE
                                       5       0       0       0

                                  MULTI-PLAN ANALYSES TO BE PERFORMED
                                     NPLAN= 1 NRTIO= 9 LRTIO= 1
              RTIOS=   0.20   0.29   0.30   0.31   0.32   0.33   0.34   0.50   1.00

          **********       **********       **********       **********       **********

                                      SUB-AREA RUNOFF COMPUTATION

            INFLOW HYDROGRAPH - SUBWATERSHED NO. 1
                             ISTAQ   ICOMP   IECON   ITAPE    JPLT    JPRT   INAME  ISTAGE   IAUTO
                                 1       0       0       0       0       0       1       0       0

                                           HYDROGRAPH DATA
            IHYDG    IUHG   TAREA    SNAP   TRSDA   TRSPC   RATIO   ISNOW   ISAME   LOCAL
                1       1   23.84    0.00   23.84    0.00   0.000       0       1       0

                                             PRECIP DATA
                         SPFE     PMS      R6     R12     R24     R48     R72     R96
                         0.00   19.30   86.00  100.00  112.00  119.00    0.00    0.00
TRSPC COMPUTED BY THE PROGRAM IS 0.829

                                              LOSS DATA
               LROPT   STRKR   DLTKR   RTIOL   ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
                   0    0.00    0.00    1.00    0.00    0.00    1.00    1.00    0.10    0.00    0.01

                                         UNIT HYDROGRAPH DATA
                                    TP=  4.61     CP=0.63     NTA=  0

                                            RECESSION DATA
                                 STRTQ=   -2.00    QRCSN=   -0.10    RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC=10.22 AND R= 8.29 INTERVALS

            UNIT HYDROGRAPH 50 END-OF-PERIOD ORDINATES, LAG=   4.57 HOURS, CP= 0.63  VOL= 1.00
               76.     281.     567.     894.    1246.    1591.    1876.    2068.    2169.    2165.
             2020.    1798.    1594.    1412.    1251.    1109.     983.     871.     772.     684.
              606.     537.     476.     422.     374.     331.     294.     260.     231.     204.
              181.     160.     142.     126.     112.      99.      88.      78.      69.      61.
               54.      48.      42.      38.      33.      30.      26.      23.      21.      18.

        0                                          END-OF-PERIOD FLOW
      MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS    COMP Q      MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS    COMP Q
       1.01   0.30       1   0.00   0.00   0.00       46.       1.02   6.30      61   0.19   0.14   0.05      281.
       1.01   1.00       2   0.00   0.00   0.00       44.       1.02   7.00      62   0.19   0.14   0.05      335.
       1.01   1.30       3   0.00   0.00   0.00       42.       1.02   7.30      63   0.19   0.14   0.05      423.
       1.01   2.00       4   0.00   0.00   0.00       41.       1.02   8.00      64   0.19   0.14   0.05      548.
       1.01   2.30       5   0.00   0.00   0.00       39.       1.02   8.30      65   0.19   0.14   0.05      718.
       1.01   3.00       6   0.00   0.00   0.00       38.       1.02   9.00      66   0.19   0.14   0.05      922.
```

1.01	3.30	7	0.00	0.00	0.00	36.	1.02	9.30	67	0.19	0.14	0.05	1163.
1.01	4.00	8	0.00	0.00	0.00	35.	1.02	10.00	68	0.19	0.14	0.05	1426.
1.01	4.30	9	0.00	0.00	0.00	34.	1.02	10.30	69	0.19	0.14	0.05	1700.
1.01	5.00	10	0.00	0.00	0.00	32.	1.02	11.00	70	0.19	0.14	0.05	1973.
1.01	5.30	11	0.00	0.00	0.00	31.	1.02	11.30	71	0.19	0.14	0.05	2228.
1.01	6.00	12	0.00	0.00	0.00	30.	1.02	12.00	72	0.19	0.14	0.05	2454.
1.01	6.30	13	0.01	0.00	0.01	29.	1.02	12.30	73	0.69	0.64	0.05	2693.
1.01	7.00	14	0.01	0.00	0.01	28.	1.02	13.00	74	0.69	0.64	0.05	3011.
1.01	7.30	15	0.01	0.00	0.01	27.	1.02	13.30	75	0.83	0.78	0.05	3463.
1.01	8.00	16	0.01	0.00	0.01	26.	1.02	14.00	76	0.83	0.78	0.05	4090.
1.01	8.30	17	0.01	0.00	0.01	25.	1.02	14.30	77	1.03	0.98	0.05	4931.
1.01	9.00	18	0.01	0.00	0.01	24.	1.02	15.00	78	1.03	0.98	0.05	6019.
1.01	9.30	19	0.01	0.00	0.01	24.	1.02	15.30	79	1.25	1.20	0.05	7361.
1.01	10.00	20	0.01	0.00	0.01	23.	1.02	16.00	80	3.97	3.92	0.05	9156.
1.01	10.30	21	0.01	0.00	0.01	22.	1.02	16.30	81	0.96	0.91	0.05	11496.
1.01	11.00	22	0.01	0.00	0.01	22.	1.02	17.00	82	0.96	0.91	0.05	14135.
1.01	11.30	23	0.01	0.00	0.01	21.	1.02	17.30	83	0.76	0.71	0.05	16898.
1.01	12.00	24	0.01	0.00	0.01	20.	1.02	18.00	84	0.76	0.71	0.05	19567.
1.01	12.30	25	0.04	0.00	0.04	20.	1.02	18.30	85	0.10	0.05	0.05	21964.
1.01	13.00	26	0.04	0.00	0.04	19.	1.02	19.00	86	0.10	0.05	0.05	23806.
1.01	13.30	27	0.05	0.00	0.05	19.	1.02	19.30	87	0.10	0.05	0.05	24934.
1.01	14.00	28	0.05	0.00	0.05	19.	1.02	20.00	88	0.10	0.05	0.05	25320.
1.01	14.30	29	0.06	0.00	0.06	19.	1.02	20.30	89	0.10	0.05	0.05	24940.
1.01	15.00	30	0.06	0.00	0.06	19.	1.02	21.00	90	0.10	0.05	0.05	23745.
1.01	15.30	31	0.08	0.00	0.08	19.	1.02	21.30	91	0.10	0.05	0.05	22025.
1.01	16.00	32	0.25	0.00	0.25	20.	1.02	22.00	92	0.10	0.05	0.05	20158.
1.01	16.30	33	0.06	0.00	0.06	21.	1.02	22.30	93	0.10	0.05	0.05	18261.
1.01	17.00	34	0.06	0.00	0.06	22.	1.02	23.00	94	0.10	0.05	0.05	16418.
1.01	17.30	35	0.05	0.00	0.05	23.	1.02	23.30	95	0.10	0.05	0.05	14717.
1.01	18.00	36	0.05	0.00	0.05	24.	1.03	0.00	96	0.10	0.05	0.05	13205.
1.01	18.30	37	0.01	0.00	0.01	25.	1.03	0.30	97	0.00	0.00	0.00	11861.
1.01	19.00	38	0.01	0.00	0.01	26.	1.03	1.00	98	0.00	0.00	0.00	10660.
1.01	19.30	39	0.01	0.00	0.01	26.	1.03	1.30	99	0.00	0.00	0.00	9581.
1.01	20.00	40	0.01	0.00	0.01	26.	1.03	2.00	100	0.00	0.00	0.00	8607.
1.01	20.30	41	0.01	0.00	0.01	26.	1.03	2.30	101	0.00	0.00	0.00	7722.
1.01	21.00	42	0.01	0.00	0.01	24.	1.03	3.00	102	0.00	0.00	0.00	6915.
1.01	21.30	43	0.01	0.00	0.01	23.	1.03	3.30	103	0.00	0.00	0.00	6179.
1.01	22.00	44	0.01	0.00	0.01	22.	1.03	4.00	104	0.00	0.00	0.00	5508.
1.01	22.30	45	0.01	0.00	0.01	20.	1.03	4.30	105	0.00	0.00	0.00	4897.
1.01	23.00	46	0.01	0.00	0.01	19.	1.03	5.00	106	0.00	0.00	0.00	4345.
1.01	23.30	47	0.01	0.00	0.01	17.	1.03	5.30	107	0.00	0.00	0.00	3850.
1.02	0.00	48	0.01	0.00	0.01	16.	1.03	6.00	108	0.00	0.00	0.00	3412.
1.02	0.30	49	0.06	0.01	0.05	16.	1.03	6.30	109	0.00	0.00	0.00	3023.
1.02	1.00	50	0.06	0.01	0.05	19.	1.03	7.00	110	0.00	0.00	0.00	2679.
1.02	1.30	51	0.06	0.01	0.05	26.	1.03	7.30	111	0.00	0.00	0.00	2480.
1.02	2.00	52	0.06	0.01	0.05	38.	1.03	8.00	112	0.00	0.00	0.00	2381.
1.02	2.30	53	0.06	0.01	0.05	56.	1.03	8.30	113	0.00	0.00	0.00	2286.
1.02	3.00	54	0.06	0.01	0.05	78.	1.03	9.00	114	0.00	0.00	0.00	2196.
1.02	3.30	55	0.06	0.01	0.05	104.	1.03	9.30	115	0.00	0.00	0.00	2108.
1.02	4.00	56	0.06	0.01	0.05	133.	1.03	10.00	116	0.00	0.00	0.00	2025.
1.02	4.30	57	0.06	0.01	0.05	164.	1.03	10.30	117	0.00	0.00	0.00	1944.
1.02	5.00	58	0.06	0.01	0.05	195.	1.03	11.00	118	0.00	0.00	0.00	1867.
1.02	5.30	59	0.06	0.01	0.05	223.	1.03	11.30	119	0.00	0.00	0.00	1793.
1.02	6.00	60	0.06	0.01	0.05	249.	1.03	12.00	120	0.00	0.00	0.00	1721.
									SUM	19.03	15.54	3.48	479095.
										(483.)	(395.)	(88.)	(13566.43)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25320.	21412.	9658.	3985.	478211.
CMS	717.	606.	273.	113.	13541.
INCHES		8.35	15.07	15.55	15.55
MM		212.22	382.89	394.96	394.96
AC-FT		10618.	19157.	19761.	19761.
THOUS CU M		13097.	23629.	24375.	24375.

OVF

STATION 1

```
                                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
              0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.      0.      0.      0.      0.      0.
                                                                                                 PRECIP(L) AND EXCESS(X)
              0.        0.        0.        0.        0.        0.        0.        0.      4.      3.      2.      1.      0.
 0.30   1I                                                                                                                L
 1.00   2I                                                                                                                L
 1.30   3I                                                                                                                L
 2.00   4I                                                                                                                L
 2.30   5I                                                                                                                L
 3.00   6I                                                                                                                L
 3.30   7I                                                                                                                L
 4.00   8I                                                                                                                L
 4.30   9I                                                                                                                L
 5.00  10I.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  . L
 5.30  11I                                                                                                                L
 6.00  12I                                                                                                                L
 6.30  13I                                                                                                                L
 7.00  14I                                                                                                                L
 7.30  15I                                                                                                                L
 8.00  16I                                                                                                                L
 8.30  17I                                                                                                                L
 9.00  18I                                                                                                                L
 9.30  19I                                                                                                                L
10.00  20I.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  . L
10.30  21I                                                                                                                L
11.00  22I                                                                                                                L
11.30  23I                                                                                                                L
12.00  24I                                                                                                                L
12.30  25I                                                                                                                L
13.00  26I                                                                                                                L
13.30  27I                                                                                                               LX
14.00  28I                                                                                                               LX
14.30  29I                                                                                                               LX
15.00  30I.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  . LX
15.30  31I                                                                                                               LX
16.00  32I                                                                                                              LLX
16.30  33I                                                                                                               LX
17.00  34I                                                                                                               LX
17.30  35I                                                                                                                L
18.00  36I                                                                                                                L
18.30  37I                                                                                                                L
19.00  38I                                                                                                                L
19.30  39I                                                                                                                L
20.00  40I.  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  .  . L
20.30  41I                                                                                                                L
21.00  42I                                                                                                                L
21.30  43I                                                                                                                L
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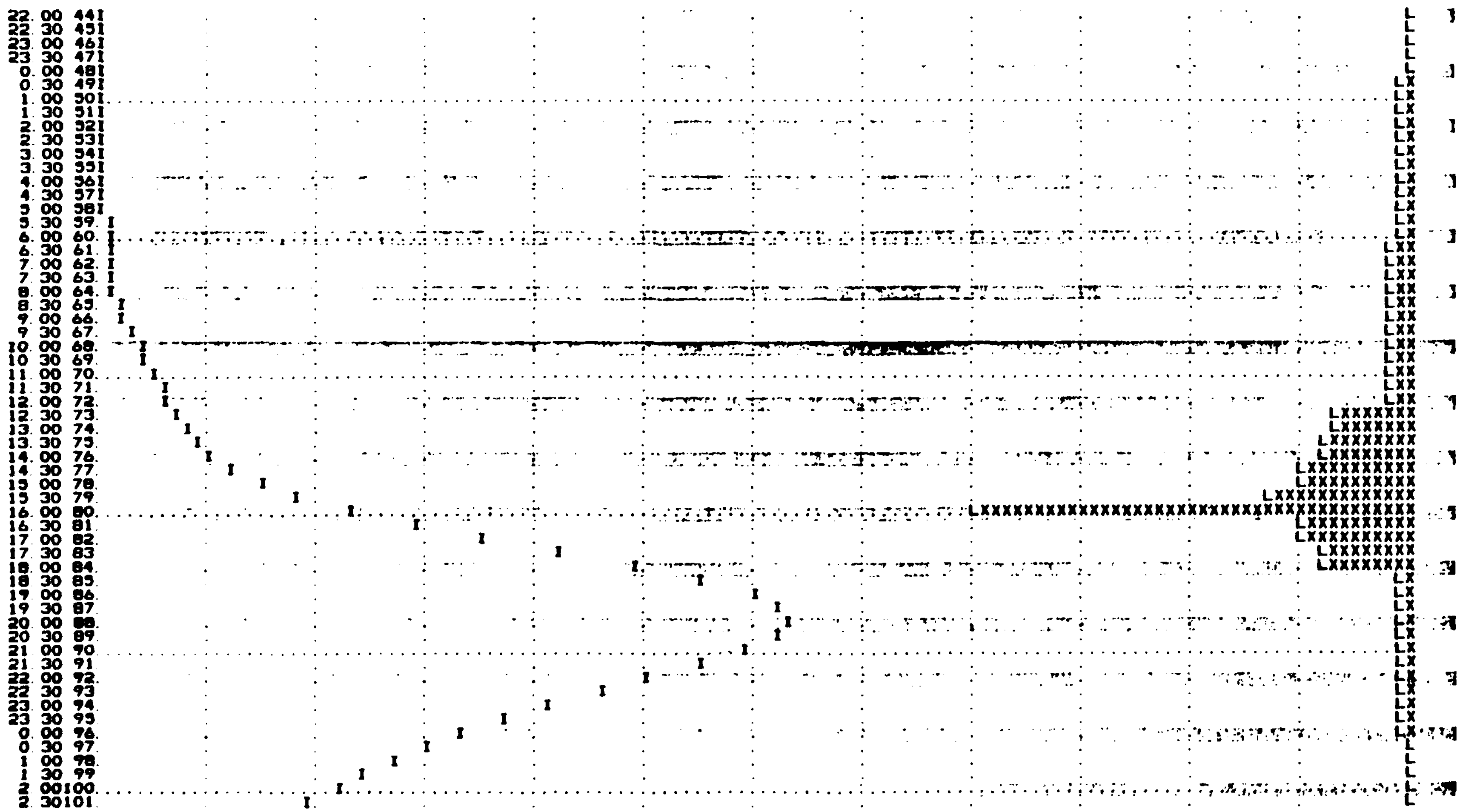
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23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91
22.00 92.
22.30 93
23.00 94.
23.30 95
0.00 96.
0.30 97.
1.00 98.
1.30 99
2.00 100.
2.30 101

```
 3.00102.           I
 3.30103.          I
 4.00104.         I
 4.30105.        I
 5.00106.       I
 5.30107.      I
 6.00108.     I
 6.30109.    I
 7.00110.   I
 7.30111.  I
 8.00112.  I
 8.30113.  I
 9.00114. I
 9.30115. I
10.00116. I
10.30117. I
11.00118. I
11.30119. I
12.00120. I
```

OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

9.	9.	8.	8.	8.	8.	7.	7.	7.	6.
6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	5.	5.	5.	8.	5.	5.
5.	5.	5.	4.	4.	4.	3.	3.	3.	4.
5.	8.	11.	16.	21.	27.	33.	39.	45.	50.
56.	67.	85.	110.	143.	184.	233.	285.	340.	395.
446.	491.	539.	602.	693.	818.	986.	1204.	1472.	1831.
2299.	2831.	3380.	3913.	4393.	4761.	4987.	5064.	4988.	4749.
4405.	4032.	3652.	3284.	2943.	2641.	2372.	2132.	1916.	1721.
1544.	1383.	1236.	1102.	979.	869.	770.	682.	605.	536.
496.	476.	457.	439.	422.	405.	389.	373.	359.	344.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5064.	4282.	1932.	797.	95642.
CMS	143.	121.	55.	23.	2708.
INCHES		1.67	3.01	3.11	3.11
MM		42.44	76.50	78.99	78.99
AC-FT		2124.	3831.	3952.	3952.
THOUS CU M		2619.	4726.	4875.	4875.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

13.	13.	12.	12.	11.	11.	10.	10.	10.	9.
9.	9.	8.	8.	8.	8.	7.	7.	7.	7.
6.	6.	6.	6.	6.	6.	6.	5.	5.	5.
6.	6.	6.	6.	7.	7.	7.	8.	8.	8.
7.	7.	7.	6.	6.	5.	5.	5.	5.	6.
8.	11.	16.	23.	30.	39.	48.	57.	65.	72.
81.	97.	123.	159.	207.	267.	337.	414.	493.	572.
646.	712.	781.	873.	1004.	1186.	1430.	1746.	2135.	2655.
3334.	4105.	4900.	5675.	6370.	6904.	7231.	7343.	7233.	6886.
6387.	5846.	5296.	4761.	4268.	3829.	3440.	3091.	2779.	2496.

2239.	2005.	1792.	1597.	1420.	1260.	1117.	989.	877.	777.
719.	691.	663.	637.	611.	587.	564.	541.	520.	499.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7343.	6210.	2801.	1156.	138681.
CMS	208.	176.	79.	33.	3927.
INCHES		2.42	4.37	4.51	4.51
MM		61.54	111.04	114.54	114.54
AC-FT		3079.	5555.	5731.	5731.
THOUS CU M		3798.	6853.	7069.	7069.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

14.	13.	13.	12.	12.	11.	11.	10.	10.	10.
9.	9.	9.	8.	8.	8.	8.	7.	7.	7.
7.	6.	6.	6.	6.	6.	6.	6.	6.	6.
6.	6.	6.	7.	7.	7.	8.	8.	8.	8.
8.	7.	7.	6.	6.	6.	5.	5.	5.	6.
8.	12.	17.	23.	31.	40.	49.	58.	67.	75.
84.	101.	127.	164.	214.	277.	349.	428.	510.	592.
668.	736.	808.	903.	1039.	1227.	1479.	1806.	2208.	2747.
3449.	4247.	5069.	5870.	6589.	7142.	7480.	7596.	7482.	7124.
6607.	6047.	5478.	4925.	4415.	3961.	3558.	3198.	2874.	2582.
2317.	2075.	1854.	1652.	1469.	1303.	1155.	1024.	907.	804.
744.	714.	686.	659.	633.	607.	583.	560.	538.	518.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7596.	6424.	2897.	1196.	143463.
CMS	215.	182.	82.	34.	4062.
INCHES		2.51	4.52	4.66	4.66
MM		63.66	114.87	118.49	118.49
AC-FT		3185.	5747.	5928.	5928.
THOUS CU M		3929.	7089.	7312.	7312.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

14.	14.	13.	13.	12.	12.	11.	11.	10.	10.
10.	9.	9.	9.	8.	8.	8.	8.	7.	7.
7.	7.	7.	6.	6.	6.	6.	6.	6.	6.
6.	6.	6.	7.	7.	8.	8.	8.	8.	8.
8.	8.	7.	7.	6.	6.	5.	5.	5.	6.
8.	12.	17.	24.	32.	41.	51.	60.	69.	77.
87.	104.	131.	170.	222.	286.	360.	442.	527.	612.
691.	761.	835.	933.	1074.	1268.	1529.	1866.	2282.	2838.
3564.	4388.	5238.	6066.	6809.	7380.	7730.	7849.	7731.	7361.
6828.	6249.	5661.	5089.	4562.	4093.	3677.	3305.	2970.	2668.
2394.	2144.	1915.	1707.	1518.	1347.	1194.	1058.	937.	831.
769.	738.	709	681.	654.	628.	603.	579.	556.	534.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7849.	6638.	2994.	1235.	148245.
CMS	222.	188.	85.	35.	4198.
INCHES		2.59	4.67	4.82	4.82
MM		65.79	118.70	122.44	122.44
AC-FT		3291.	5939.	6126.	6126.
THOUS CU M		4060.	7325.	7556.	7556.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

15.	14.	14.	13.	12.	12.	12.	11.	11.	10.
10.	10.	9.	9.	9.	8.	8.	8.	8.	7.
7.	7.	7.	7.	6.	6.	6.	6.	6.	6.
6.	6.	7.	7.	7.	8.	8.	8.	8.	8.
8.	8.	7.	7.	6.	6.	6.	5.	5.	6.
8.	12.	18.	25.	33.	43.	53.	62.	72.	80.
90.	107.	135.	175.	229.	295.	372.	456.	544.	631.
713.	785.	862.	964.	1108.	1309.	1578.	1926.	2358.	2930.
3679.	4530.	5407.	6262.	7029.	7618.	7979.	8103.	7981.	7599.
7048.	6450.	5843.	5254.	4709.	4225.	3795.	3411.	3066.	2754.
2471.	2213.	1977.	1762.	1567.	1390.	1232.	1092.	967.	857.
793.	762.	732.	703.	675.	648.	622.	597.	574.	551.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	8103.	6852.	3091.	1275.	153027.
CMS	229.	194.	88.	36.	4333.
INCHES		2.67	4.82	4.98	4.98
MM		67.91	122.52	126.39	126.39
AC-FT		3398.	6130.	6323.	6323.
THOUS CU M		4191.	7561.	7800.	7800.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

15.	15.	14.	13.	13.	12.	12.	11.	11.	11.
10.	10.	10.	9.	9.	9.	8.	8.	8.	8.
7	7	7.	7.	7.	6.	6.	6.	6.	6.
6.	6.	7.	7.	8.	8.	8.	9.	9.	9.
8.	8.	8.	7.	7.	6.	6.	5.	5.	6.
9	13.	18.	26.	34.	44.	54.	64.	74.	82.
93.	111.	139.	181.	236.	304.	384.	471.	561.	651.
735	810	889.	994.	1143.	1350.	1627.	1986.	2429.	3021.
3794.	4671.	5576.	6457.	7248.	7856.	8228.	8356.	8230.	7836.
7268	6652	6026.	5418.	4857.	4358.	3914.	3518.	3162.	2840.
2548	2282.	2039.	1817.	1616.	1434.	1271.	1126.	998.	884.
818.	786.	755.	725.	696.	668.	642.	616.	592.	568.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	8356.	7066.	3187.	1315.	157809.
CMS	237.	200.	90.	37.	4469.
INCHES		2.76	4.97	5.13	5.13
MM		70.03	126.35	130.34	130.34
AC-FT		3504.	6322.	6521.	6521.
THOUS CU M		4322.	7798.	8044.	8044.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

16.	15.	14.	14.	13.	13.	12.	12.	11.	11.
11.	10.	10.	9.	9.	9.	9.	8.	8.	8.
8	7	7.	7.	7.	7.	6.	6.	6.	6.
6.	7.	7.	7.	8.	8.	9.	9.	9.	9.
9.	8.	8.	7.	7.	6.	6.	5.	5.	6.
9.	13.	17.	26.	35.	45.	56.	66.	76.	85.
95.	114	144.	186.	243.	313.	395.	485.	578.	671.
757.	834.	915.	1024.	1178.	1391.	1677.	2047.	2503.	3113.
3909	4813.	5745.	6653.	7468.	8094.	8478.	8609.	8479.	8073.
7488.	6854.	6209.	5582.	5004.	4490.	4033.	3624.	3258.	2926.
2625	2351.	2101	1873.	1665.	1477.	1309.	1160.	1028.	911.

FLAHERTY GIAVARA ASSOCIATES, P.C.

843.	810.	777.	747.	717.	688.	661.	635.	610.	585.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	8609.	7280.	3284.	1355.	162591.
CMS	244.	206.	93.	38.	4604.
INCHES		2.84	5.13	5.29	5.29
MM		72.15	130.18	134.29	134.29
AC-FT		3610.	6513.	6719.	6719.
THOUS CU M		4453.	8034.	8287.	8287.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

23.	22.	21.	20.	20.	19.	18.	17.	17.	16.
16.	15.	14.	14.	13.	13.	13.	12.	12.	11.
11.	11.	10.	10.	10.	10.	9.	9.	9.	9.
10.	10.	10.	11.	12.	12.	13.	13.	13.	13.
13.	12.	12.	11.	10.	9.	9.	8.	8.	10.
13.	19.	28.	39.	52.	67.	82.	97.	112.	124.
140.	168.	211.	274.	357.	461.	581.	713.	850.	987.
1114.	1227.	1346.	1506.	1732.	2045.	2466.	3010.	3681.	4578.
9748.	7078.	8449.	9784.	10982.	11903.	12467.	12660.	12470.	11873.
11012.	10079.	9130.	8209.	7358.	5602.	5930.	5330.	4791.	4303.
3861.	3458.	3090.	2754.	2448.	2172.	1925.	1706.	1512.	1340.
1240.	1191.	1143.	1098.	1054.	1012.	972.	933.	896.	861.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12660.	10706.	4829.	1993.	239105.
CMS	358.	303.	137.	56.	6771.
INCHES		4.18	7.54	7.77	7.77
MM		106.11	191.45	197.48	197.48
AC-FT		5309.	9578.	9880.	9880.
THOUS CU M		6548.	11815.	12187.	12187.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

46.	44.	42.	41.	39.	38.	36.	35.	34.	32.
31.	30.	29.	28.	27.	26.	25.	24.	24.	23.
22.	22.	21.	20.	20.	19.	19.	19.	19.	19.
19.	20.	21.	22.	23.	24.	25.	26.	26.	26.
26.	24.	23.	22.	20.	19.	17.	16.	16.	19.
26.	38.	56.	78.	104.	133.	164.	193.	223.	249.
281.	335.	423.	548.	715.	922.	153.	1426.	1700.	1973.
2228.	2454.	2693.	3011.	3463.	4090.	931.	6019.	7361.	9156.
11496.	14155.	16898.	19567.	21964.	23806.	24934.	25320.	24940.	23745.
22025.	20158.	18261.	16418.	14717.	13205.	11861.	10660.	9581.	8607.
7722.	6915.	6179.	5508.	4897.	4345.	3850.	3412.	3023.	2679.
2480.	2381.	2286.	2196.	2108.	2025.	1944.	1867.	1793.	1721.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25320.	21412.	9658.	3985.	478210.
CMS	717.	606.	273.	113.	13541.
INCHES		8.35	15.07	15.55	15.55
MM		212.22	382.89	394.96	394.96
AC-FT		10618.	19157.	19761.	19761.
THOUS CU M		13097.	23629.	24374.	24374.

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**********          **********          **********          **********          **********

                              SUB-AREA RUNOFF COMPUTATION

            INFLOW HYDROGRAPH - SUBWATERSHED NO. 2
                        ISTAG   ICOMP   IECON   ITAPE    JPLT    JPRT   INAME  ISTAGE  IAUTO
                          1       0       0       0        0       0      1       0      0

                                      HYDROGRAPH DATA
            IHYDG    IUHG    TAREA    SNAP    TRSDA    TRSPC    RATIO   ISNOW   ISAME   LOCAL
               1        1    13.03    0.00    13.03     0.00    0.000     0       1       0

                                        PRECIP DATA
                     SPFE     PMS      R6      R12      R24      R48      R72     R96
                     0.00   19.30   86.00   100.00   112.00   119.00    0.00    0.00
   TRSPC COMPUTED BY THE PROGRAM IS 0.809

                                         LOSS DATA
         LROPT   STRKR   DLTKR   RTIOL   ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
           0      0.00    0.00    1.00    0.00    0.00    1.00    1.00    0.10    0.00    0.01

                                  UNIT HYDROGRAPH DATA
                              TP=  3.87     CP=0.63    NTA=  0

                                     RECESSION DATA
                       STRTQ=   -2.00    QRCSN=    -0.10    RTIOR=  1.50
   APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 8.75 AND R= 7.04 INTERVALS

          UNIT HYDROGRAPH 42 END-OF-PERIOD ORDINATES, LAG=   3.87 HOURS, CP= 0.63   VOL= 1.00
            61.     225.     450.     705.     968.    1169.    1332.    1394.    1350.    1211.
          1050.     911.     790.     686.     595.     516.     447.     388.     337.     292.
           253.     220.     191.     165.     143.     124.     108.      94.      81.      70.
            61.      53.      46.      40.      35.      30.      26.      23.      20.      17.
            15.      13.
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END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	25.	1.02	6.30	61	0.18	0.13	0.05	161.
1.01	1.00	2	0.00	0.00	0.00	24.	1.02	7.00	62	0.18	0.13	0.05	197.
1.01	1.30	3	0.00	0.00	0.00	23.	1.02	7.30	63	0.18	0.13	0.05	258.
1.01	2.00	4	0.00	0.00	0.00	22.	1.02	8.00	64	0.18	0.13	0.05	349.
1.01	2.30	5	0.00	0.00	0.00	21.	1.02	8.30	65	0.18	0.13	0.05	471.
1.01	3.00	6	0.00	0.00	0.00	21.	1.02	9.00	66	0.18	0.13	0.05	618.
1.01	3.30	7	0.00	0.00	0.00	20.	1.02	9.30	67	0.18	0.13	0.05	782.
1.01	4.00	8	0.00	0.00	0.00	19.	1.02	10.00	68	0.18	0.13	0.05	952.
1.01	4.30	9	0.00	0.00	0.00	18.	1.02	10.30	69	0.18	0.13	0.05	1117.
1.01	5.00	10	0.00	0.00	0.00	18.	1.02	11.00	70	0.18	0.13	0.05	1265.
1.01	5.30	11	0.00	0.00	0.00	17.	1.02	11.30	71	0.18	0.13	0.05	1393.
1.01	6.00	12	0.00	0.00	0.00	16.	1.02	12.00	72	0.18	0.13	0.05	1504.
1.01	6.30	13	0.01	0.00	0.01	16.	1.02	12.30	73	0.67	0.62	0.05	1630.
1.01	7.00	14	0.01	0.00	0.01	15.	1.02	13.00	74	0.67	0.62	0.05	1824.
1.01	7.30	15	0.01	0.00	0.01	15.	1.02	13.30	75	0.81	0.76	0.05	2125.
1.01	8.00	16	0.01	0.00	0.01	14.	1.02	14.00	76	0.81	0.76	0.05	2563.
1.01	8.30	17	0.01	0.00	0.01	14.	1.02	14.30	77	1.01	0.96	0.05	3164.
1.01	9.00	18	0.01	0.00	0.01	13.	1.02	15.00	78	1.01	0.96	0.05	3933.
1.01	9.30	19	0.01	0.00	0.01	13.	1.02	15.30	79	1.22	1.18	0.05	4860.
1.01	10.00	20	0.01	0.00	0.01	13.	1.02	16.00	80	3.88	3.83	0.05	6090.

1.01	10.30	21	0.01	0.00	0.01	12.	1.02	16.30	81	0.94	0.89	0.05	7671.
1.01	11.00	22	0.01	0.00	0.01	12.	1.02	17.00	82	0.94	0.89	0.05	9405.
1.01	11.30	23	0.01	0.00	0.01	12.	1.02	17.30	83	0.74	0.69	0.05	11139.
1.01	12.00	24	0.01	0.00	0.01	11.	1.02	18.00	84	0.74	0.69	0.05	12756.
1.01	12.30	25	0.04	0.00	0.04	11.	1.02	18.30	85	0.09	0.04	0.05	14045.
1.01	13.00	26	0.04	0.00	0.04	11.	1.02	19.00	86	0.09	0.04	0.05	14820.
1.01	13.30	27	0.05	0.00	0.05	11.	1.02	19.30	87	0.09	0.04	0.05	15034.
1.01	14.00	28	0.05	0.00	0.05	10.	1.02	20.00	88	0.09	0.04	0.05	14630.
1.01	14.30	29	0.06	0.00	0.06	11.	1.02	20.30	89	0.09	0.04	0.05	13680.
1.01	15.00	30	0.06	0.00	0.06	11.	1.02	21.00	90	0.09	0.04	0.05	12466.
1.01	15.30	31	0.08	0.00	0.08	11.	1.02	21.30	91	0.09	0.04	0.05	11190.
1.01	16.00	32	0.24	0.00	0.24	11.	1.02	22.00	92	0.09	0.04	0.05	9921.
1.01	16.30	33	0.06	0.00	0.06	12.	1.02	22.30	93	0.09	0.04	0.05	8730.
1.01	17.00	34	0.06	0.00	0.06	13.	1.02	23.00	94	0.09	0.04	0.05	7671.
1.01	17.30	35	0.05	0.00	0.05	14.	1.02	23.30	95	0.09	0.04	0.05	6753.
1.01	18.00	36	0.05	0.00	0.05	15.	1.03	0.00	96	0.09	0.04	0.05	5956.
1.01	18.30	37	0.01	0.00	0.01	15.	1.03	0.30	97	0.00	0.00	0.00	5262.
1.01	19.00	38	0.01	0.00	0.01	15.	1.03	1.00	98	0.00	0.00	0.00	4653.
1.01	19.30	39	0.01	0.00	0.01	15.	1.03	1.30	99	0.00	0.00	0.00	4113.
1.01	20.00	40	0.01	0.00	0.01	15.	1.03	2.00	100	0.00	0.00	0.00	3630.
1.01	20.30	41	0.01	0.00	0.01	14.	1.03	2.30	101	0.00	0.00	0.00	3196.
1.01	21.00	42	0.01	0.00	0.01	13.	1.03	3.00	102	0.00	0.00	0.00	2804.
1.01	21.30	43	0.01	0.00	0.01	12.	1.03	3.30	103	0.00	0.00	0.00	2450.
1.01	22.00	44	0.01	0.00	0.01	11.	1.03	4.00	104	0.00	0.00	0.00	2132.
1.01	22.30	45	0.01	0.00	0.01	10.	1.03	4.30	105	0.00	0.00	0.00	1849.
1.01	23.00	46	0.01	0.00	0.01	9.	1.03	5.00	106	0.00	0.00	0.00	1603.
1.01	23.30	47	0.01	0.00	0.01	9.	1.03	5.30	107	0.00	0.00	0.00	1471.
1.02	0.00	48	0.01	0.00	0.01	8.	1.03	6.00	108	0.00	0.00	0.00	1413.
1.02	0.30	49	0.06	0.01	0.05	8.	1.03	6.30	109	0.00	0.00	0.00	1357.
1.02	1.00	50	0.06	0.01	0.05	11.	1.03	7.00	110	0.00	0.00	0.00	1303.
1.02	1.30	51	0.06	0.01	0.05	16.	1.03	7.30	111	0.00	0.00	0.00	1251.
1.02	2.00	52	0.06	0.01	0.05	25.	1.03	8.00	112	0.00	0.00	0.00	1201.
1.02	2.30	53	0.06	0.01	0.05	37.	1.03	8.30	113	0.00	0.00	0.00	1154.
1.02	3.00	54	0.06	0.01	0.05	52.	1.03	9.00	114	0.00	0.00	0.00	1108.
1.02	3.30	55	0.06	0.01	0.05	69.	1.03	9.30	115	0.00	0.00	0.00	1064.
1.02	4.00	56	0.06	0.01	0.05	86.	1.03	10.00	116	0.00	0.00	0.00	1022.
1.02	4.30	57	0.06	0.01	0.05	104.	1.03	10.30	117	0.00	0.00	0.00	981.
1.02	5.00	58	0.06	0.01	0.05	119.	1.03	11.00	118	0.00	0.00	0.00	942.
1.02	5.30	59	0.06	0.01	0.05	132.	1.03	11.30	119	0.00	0.00	0.00	905.
1.02	6.00	60	0.06	0.01	0.05	144.	1.03	12.00	120	0.00	0.00	0.00	869.
									SUM	18.38	15.13	3.46	260350.
										(472.)	(384.)	(88.)	(7372.28)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15034.	12274.	5236.	2166.	259903.
CMS	426.	348.	148.	61.	7360.
INCHES		8.76	14.95	15.46	15.46
MM		222.57	379.80	392.74	392.74
AC-FT		6086.	10386.	10740.	10740.
THOUS CU M		7507.	12811.	13247.	13247.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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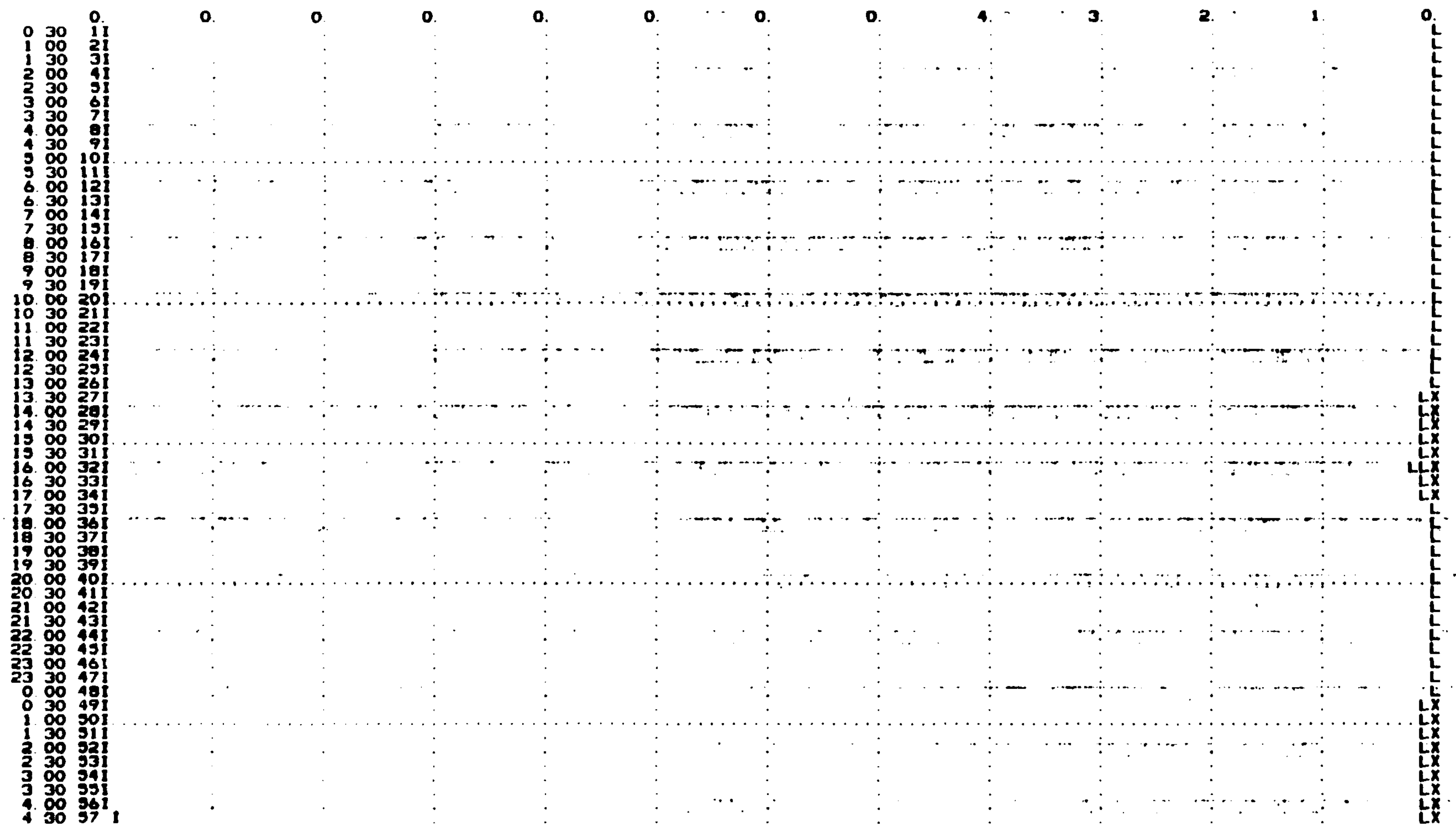
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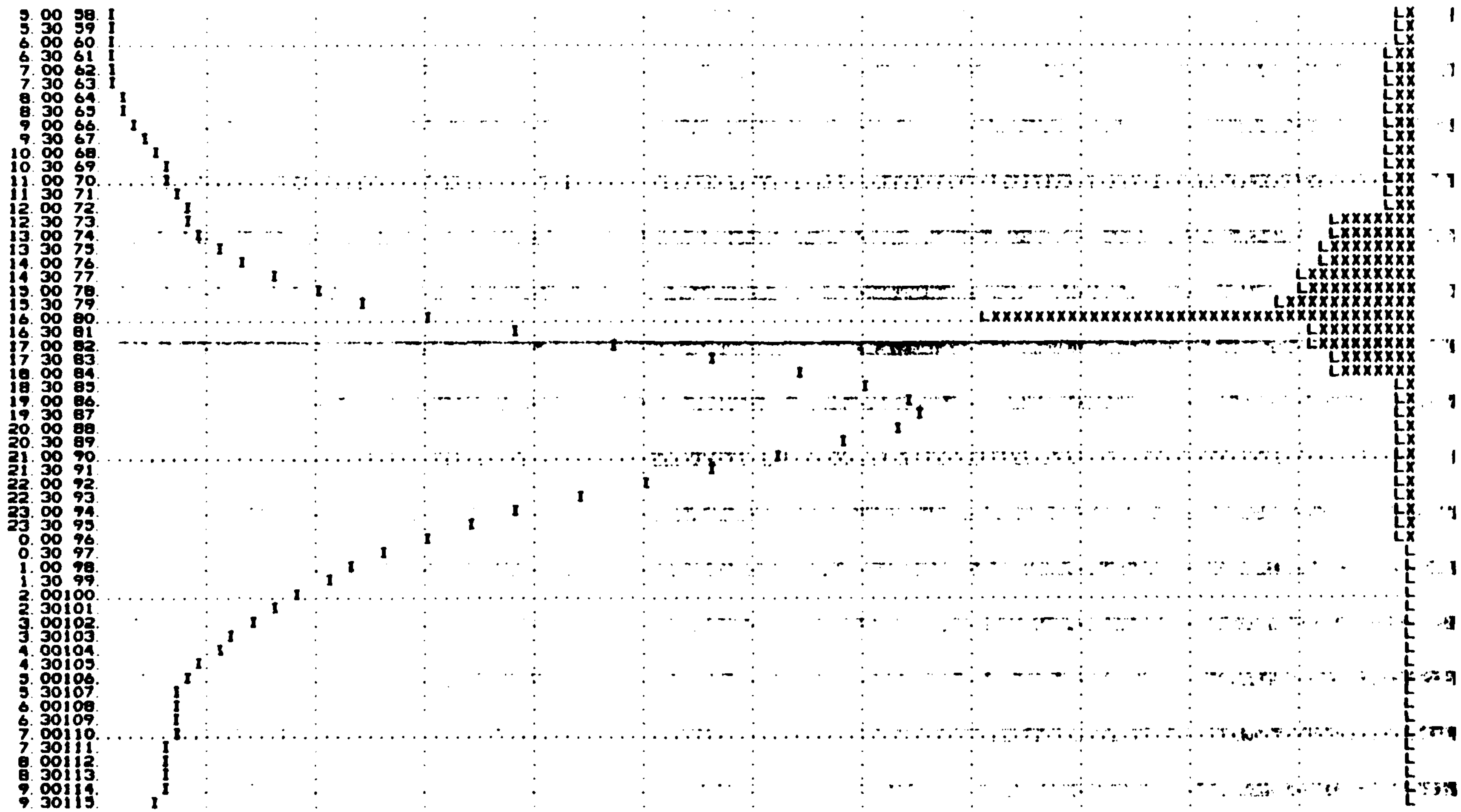
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22.00 92.
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OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

		3.							
3.	3.	3.	4.	4.	4.	4.	4.	4.	4.
3.	3.	2.	3.	3.	3.	3.	3.	3.	3.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	3.	3.	3.	3.	3.	3.	3.
3.	3.	2.	2.	2.	2.	2.	2.	2.	2.
3.	3.	7.	10.	14.	17.	21.	24.	26.	29.
32.	39.	52.	70.	94.	124.	156.	190.	223.	253.
279.	301.	326.	365.	425.	513.	633.	787.	972.	1218.
1534.	1881.	2228.	2551.	2809.	2964.	3007.	2926.	2736.	2493.
2238.	1984.	1748.	1534.	1351.	1191.	1032.	931.	823.	726.
639.	561.	490.	426.	370.	321.	294.	283.	271.	261.
250.	240.	231.	222.	213.	204.	196.	188.	181.	174.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3007.	2455.	1047.	433.	51981.
CMS	85.	70.	30.	12.	1472.
INCHES		1.75	2.99	3.09	3.09
MM		44.51	75.96	78.55	78.55
AC-FT		1217.	2077.	2148.	2148.
THOUS CU M		1501.	2562.	2649.	2649.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

7.	7.	7.	6.	6.	6.	6.	6.	5.	5.
5.	5.	5.	4.	4.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	2.	2.	2.	3.
5.	7.	11.	15.	20.	25.	30.	34.	38.	42.
47.	57.	75.	101.	137.	179.	227.	276.	324.	367.
404.	436.	473.	529.	616.	743.	918.	1141.	1409.	1766.
2225.	2728.	3230.	3699.	4073.	4298.	4360.	4243.	3967.	3615.
3245.	2877.	2532.	2225.	1958.	1727.	1526.	1349.	1193.	1053.
927.	813.	710.	618.	536.	469.	427.	410.	393.	378.
363.	348.	335.	321.	309.	296.	284.	273.	262.	252.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4360.	3559.	1518.	628.	75372.
CMS	123.	101.	43.	18.	2134.
INCHES		2.54	4.34	4.48	4.48
MM		64.55	110.14	113.90	113.90
AC-FT		1765.	3012.	3115.	3115.
THOUS CU M		2177.	3715.	3842.	3842.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

8.	7.	7.	7.	6.	6.	6.	6.	6.	5.

5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
4.	4.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	4.	4.	4.	4.	5.	5.	5.	4.
4.	4.	4.	3.	3.	3.	3.	2.	2.	3.
5.	7.	11.	16.	21.	26.	31.	36.	40.	43.
48.	59.	77.	105.	141.	185.	235.	286.	335.	379.
418.	451.	489.	547.	637.	769.	949.	1180.	1458.	1827.
2301.	2822.	3342.	3827.	4214.	4446.	4510.	4389.	4104.	3740.
3357.	2976.	2619.	2301.	2026.	1787.	1579.	1396.	1234.	1089.
939.	841.	735.	639.	555.	481.	441.	424.	407.	391.
375.	360.	346.	332.	319.	306.	294.	283.	271.	261.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4510.	3682.	1571.	650.	77971.
CMS	128.	104.	44.	18.	2208.
INCHES		2.63	4.49	4.64	4.64
MM		66.77	113.94	117.82	117.82
AC-FT		1826.	3116.	3222.	3222.
THOUS CU M		2252.	3843.	3974.	3974.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

8.	7.	7.	7.	7.	6.	6.	6.	6.	5.
5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
4.	4.	4.	3.	3.	3.	3.	3.	3.	3.
3.	4.	4.	4.	4.	5.	5.	5.	5.	5.
4.	4.	4.	3.	3.	3.	3.	2.	3.	3.
5.	8.	11.	16.	21.	27.	32.	37.	41.	45.
50.	61.	80.	108.	146.	192.	242.	295.	346.	392.
432.	466.	505.	565.	659.	795.	981.	1219.	1507.	1888.
2378.	2916.	3453.	3954.	4354.	4594.	4661.	4535.	4241.	3864.
3469.	3076.	2706.	2378.	2093.	1846.	1631.	1442.	1275.	1125.
991.	869.	759.	661.	573.	497.	456.	438.	421.	404.
388.	372.	358.	343.	330.	317.	304.	292.	280.	269.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4661.	3805.	1623.	671.	80570.
CMS	132.	108.	46.	19.	2281.
INCHES		2.72	4.64	4.79	4.79
MM		69.00	117.74	121.75	121.75
AC-FT		1887.	3220.	3329.	3329.
THOUS CU M		2327.	3971.	4107.	4107.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

8.	8.	7.	7.	7.	7.	6.	6.	6.	6.
5.	5.	5.	5.	5.	5.	4.	4.	4.	4.
4.	4.	4.	4.	4.	3.	3.	3.	3.	3.
4.	4.	4.	4.	4.	5.	5.	5.	5.	5.
4.	4.	4.	4.	3.	3.	3.	3.	3.	3.
5.	8.	12.	17.	22.	28.	33.	38.	42.	46.
52.	63.	83.	112.	151.	198.	250.	305.	357.	405.
446.	481.	522.	584.	680.	820.	1013.	1259.	1599.	1949.
2455.	3010.	3564.	4082.	4494.	4743.	4811.	4682.	4378.	3989.
3581.	3175.	2794.	2455.	2161.	1906.	1684.	1489.	1316.	1162.
1023.	897.	784.	682.	592.	513.	471.	452.	434.	417.
400.	384.	369.	355.	340.	327.	314.	301.	289.	278.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4811.	3928.	1676.	693.	83169.
CMS	136.	111.	47.	20.	2355.
INCHES		2.80	4.78	4.95	4.95
MM		71.22	121.54	125.68	125.68
AC-FT		1948.	3323.	3437.	3437.
THOUS CU M		2402.	4099.	4239.	4239.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

8.	8.	8.	7.	7.	7.	7.	6.	6.	6.
6.	5.	5.	5.	5.	5.	5.	4.	4.	4.
4.	4.	4.	4.	4.	4.	3.	3.	3.	4.
4.	4.	4.	4.	5.	5.	5.	5.	5.	5.
5.	4.	4.	4.	3.	3.	3.	3.	3.	3.
5.	8.	12.	17.	23.	28.	34.	39.	44.	47.
53.	65.	85.	115.	155.	204.	258.	314.	369.	417.
460.	496.	538.	602.	701.	846.	1044.	1298.	1604.	2010.
2532.	3104.	3676.	4210.	4635.	4871.	4961.	4828.	4514.	4114.
3693.	3274.	2881.	2532.	2228.	1965.	1737.	1535.	1357.	1198.
1055.	925.	808.	703.	610.	529.	486.	466.	448.	430.
413.	396.	381.	366.	351.	337.	324.	311.	298.	287.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4761.	4050.	1728.	715.	85768.
CMS	140.	115.	49.	20.	2429.
INCHES		2.89	4.93	5.10	5.10
MM		73.45	125.33	129.61	129.61
AC-FT		2008.	3427.	3544.	3544.
THOUS CU M		2477.	4228.	4372.	4372.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

9.	8.	8.	8.	7.	7.	7.	6.	6.	6.
6.	6.	5.	5.	5.	5.	5.	5.	4.	4.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	5.	5.	5.	5.	5.	5.
5.	4.	4.	4.	3.	3.	3.	3.	3.	4.
5.	8.	12.	18.	23.	29.	35.	40.	45.	49.
55.	67.	88.	119.	160.	210.	266.	324.	380.	430.
474.	511.	554.	620.	722.	872.	1076.	1337.	1652.	2071.
2608.	3198.	3787.	4337.	4775.	5039.	5112.	4974.	4651.	4238.
3805.	3373.	2968.	2608.	2296.	2025.	1789.	1582.	1398.	1234.
1087.	953.	833.	725.	629.	545.	500.	480.	461.	443.
425.	408.	392.	377.	362.	347.	334.	320.	308.	295.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5112.	4173.	1780.	736.	88367.
CMS	145.	118.	50.	21.	2502.
INCHES		2.98	5.08	5.26	5.26
MM		75.67	129.13	133.53	133.53
AC-FT		2069.	3531.	3652.	3652.
THOUS CU M		2552.	4356.	4504.	4504.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

13.	12.	12.	11.	11.	10.	10.	10.	9.	9.
9.	8.	8.	8.	7.	7.	7.	7.	7.	6.

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      6.      6.      6.      6.      5.      5.      5.      5.      5.      5.
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      8.     12.     18.     26.     34.     43.     32.     59.     66.     72.
     81.     98.    129.    175.    235.    309.    391.    476.    559.    632.
    696.    752.    815.    912.   1062.   1282.   1582.   1967.   2430.   3045.
   3836.   4703.   5569.   6378.   7023.   7410.   7517.   7315.   6840.   6233.
   5595.   4961.   4365.   3836.   3376.   2978.   2631.   2326.   2056.   1815.
   1998.   1402.   1225.   1066.    925.    801.    736.    706.    678.    651.
    626.    601.    577.    554.    532.    511.    490.    471.    452.    434.

                    PEAK    6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
          CFS      7517.     6137.     2618.     1083.       129931.
          CMS       213.      174.       74.       31.         3680.
       INCHES                 4.38      7.48      7.73         7.73
           MM               111.28    189.90    196.37       196.37
        AC-FT                3043.     5193.     5370.        5370.
  THOUS CU M                 3754.     6405.     6624.        6624.

                  HYDROGRAPH AT STA      1 FOR PLAN 1, RTIO 9
     25.     24.     23.     22.     21.     21.     20.     19.     18.     18.
     17.     16.     16.     15.     15.     14.     14.     13.     13.     13.
     12.     12.     12.     11.     11.     11.     11.     10.     11.     11.
     11.     11.     12.     13.     14.     13.     15.     10.     10.     13.
     14.     13.     12.     11.     10.      9.      9.      8.      8.     11.
     16.     25.     37.     52.     69.     86.    104.    119.    132.    144.
    161.    197.    258.    349.    471.    618.    782.    952.   1117.   1265.
   1393.   1504.   1630.   1824.   2125.   2563.   3164.   3733.   4860.   6070.
   7671.   9405.  11139.  12756.  14045.  14820.  15034.  14630.  13680.  12466.
  11190.   9921.   8730.   7671.   6753.   5956.   5262.   4653.   4113.   3630.
   3196.   2804.   2450.   2132.   1849.   1603.   1471.   1413.   1357.   1303.
   1251.   1201.   1154.   1108.   1064.   1022.    981.    942.    905.    869.

                    PEAK    6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
          CFS     15034.    12274.     5236.     2166.       259902.
          CMS       426.      348.      148.       61.         7360.
       INCHES                 8.76     14.95     15.46        15.46
           MM               222.57    379.80    392.74       392.74
        AC-FT                6086.    10386.    10740.       10740.
  THOUS CU M                 7507.    12811.    13247.       13247.


**********          **********          **********          **********          **********

                               COMBINE HYDROGRAPHS

      COMBINE 2 INFLOW HYDROGRAPHS
               ISTAQ   ICOMP   IECON   ITAPE    JPLT    JPRT   INAME  ISTAGE   IAUTO
                   1       2       0       0       0       0       1       0       0

              SUM OF 2 HYDROGRAPHS AT       1 PLAN 1  RTIO 1
     14.     14.     13.     13.     12.     12.     11.     11.     10.     10.
     10.      9.      9.      9.      8.      8.      8.      8.      7.      7.
      7.      7.      7.      6.      6.      6.      6.      6.      6.      6.
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6.	6.	7.	7.	7.	8.	8.	8.	8.	8.
8.	8.	7.	7.	6.	6.	5.	5.	5.	6.
8.	13.	18.	26.	35.	44.	54.	63.	71.	79.
88.	106.	136.	179.	237.	308.	389.	476.	563.	648.
724.	792.	865.	967.	1118.	1331.	1619.	1991.	2444.	3049.
3834.	4712.	5607.	6465.	7202.	7725.	7994.	7990.	7724.	7242.
6643.	6016.	5398.	4818.	4294.	3832.	3429.	3063.	2739.	2447.
2184.	1944.	1726.	1528.	1349.	1189.	1064.	965.	876.	796.
746.	717.	688.	661.	634.	609.	585.	562.	539.	518.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7994.	6731.	2978.	1230.	147623.
CMS	226.	191.	84.	35.	4180.
INCHES		1.70	3.01	3.10	3.10
MM		43.13	76.35	78.84	78.84
AC-FT		3338.	5908.	6100.	6100.
THOUS CU M		4117.	7287.	7524.	7524.

OVF

STATION 1

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                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    1000.    2000.    3000.    4000.    5000.    6000.    7000.    8000.    0.    0.    0.    0.
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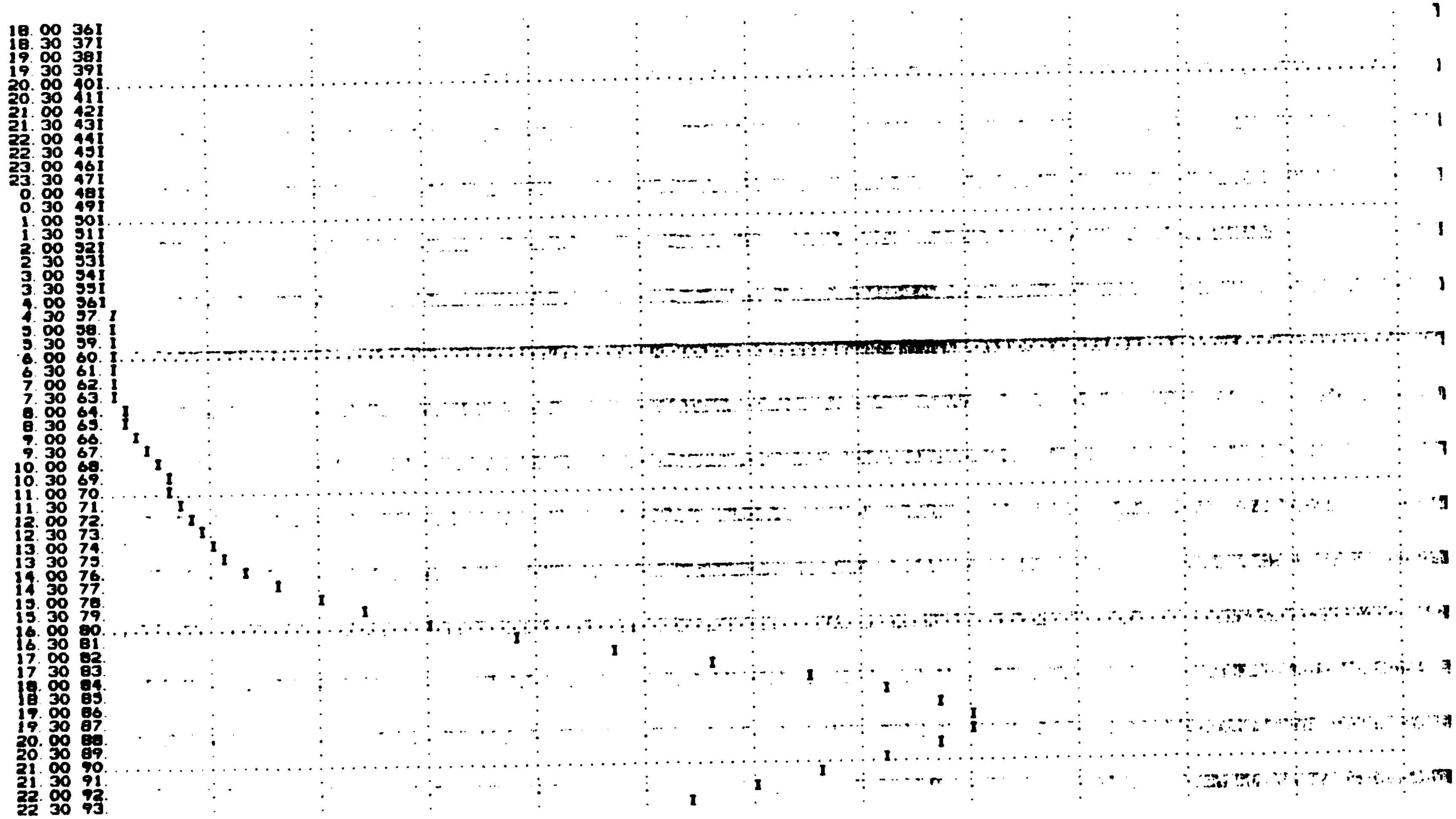
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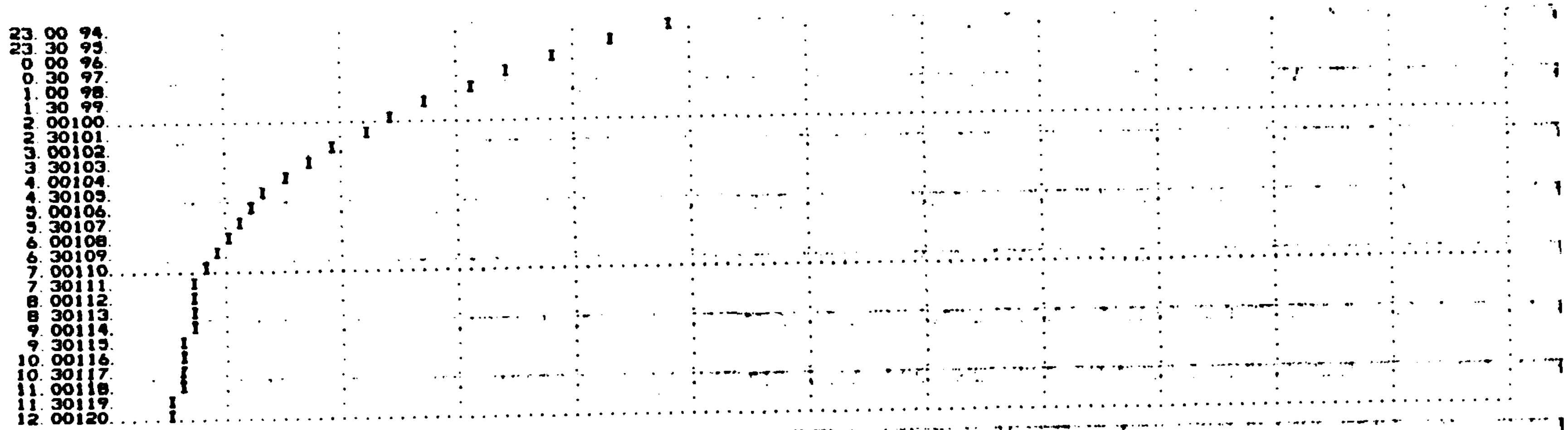
22.30 93



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

21.	20.	19.	18.	18.	17.	16.	16.	15.	15.
14.	13.	13.	13.	12.	12.	11.	11.	11.	10.
10.	10.	9.	9.	9.	9.	9.	8.	8.	9.
9.	9.	9.	10.	11.	11.	12.	12.	12.	12.
11.	11.	10.	9.	9.	8.	7.	7.	7.	9.
12.	18.	27.	38.	50.	64.	78.	91.	103.	114.
128.	154.	197.	260.	344.	447.	564.	690.	817.	939.
1050.	1148.	1254.	1402.	1621.	1929.	2348.	2886.	3544.	4421.
5559.	6833.	8131.	9374.	10443.	11202.	11591.	11586.	11200.	10501.
9632.	8723.	7827.	6986.	6226.	5557.	4966.	4441.	3971.	3549.
3166.	2819.	2502.	2215.	1956.	1725.	1543.	1399.	1270.	1155.
1082.	1039.	998.	958.	920.	883.	848.	815.	782.	751.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	11591.	9760.	4319.	1784.	214053.
CMS	328.	276.	122.	51.	6061.
INCHES		2.46	4.36	4.50	4.50
MM		62.55	110.71	114.31	114.31
AC-FT		4840.	8566.	8845.	8845.
THOUS CU M		5970.	10566.	10910.	10910.

OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
16.30  33I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
21.30  43I
22.00  44I
22.30  45I
23.00  46I
23.30  47I
 0.00  48I
 0.30  49I
 1.00  50I
 1.30  51I
 2.00  52I
 2.30  53I
 3.00  54I
 3.30  55I
 4.00  56I
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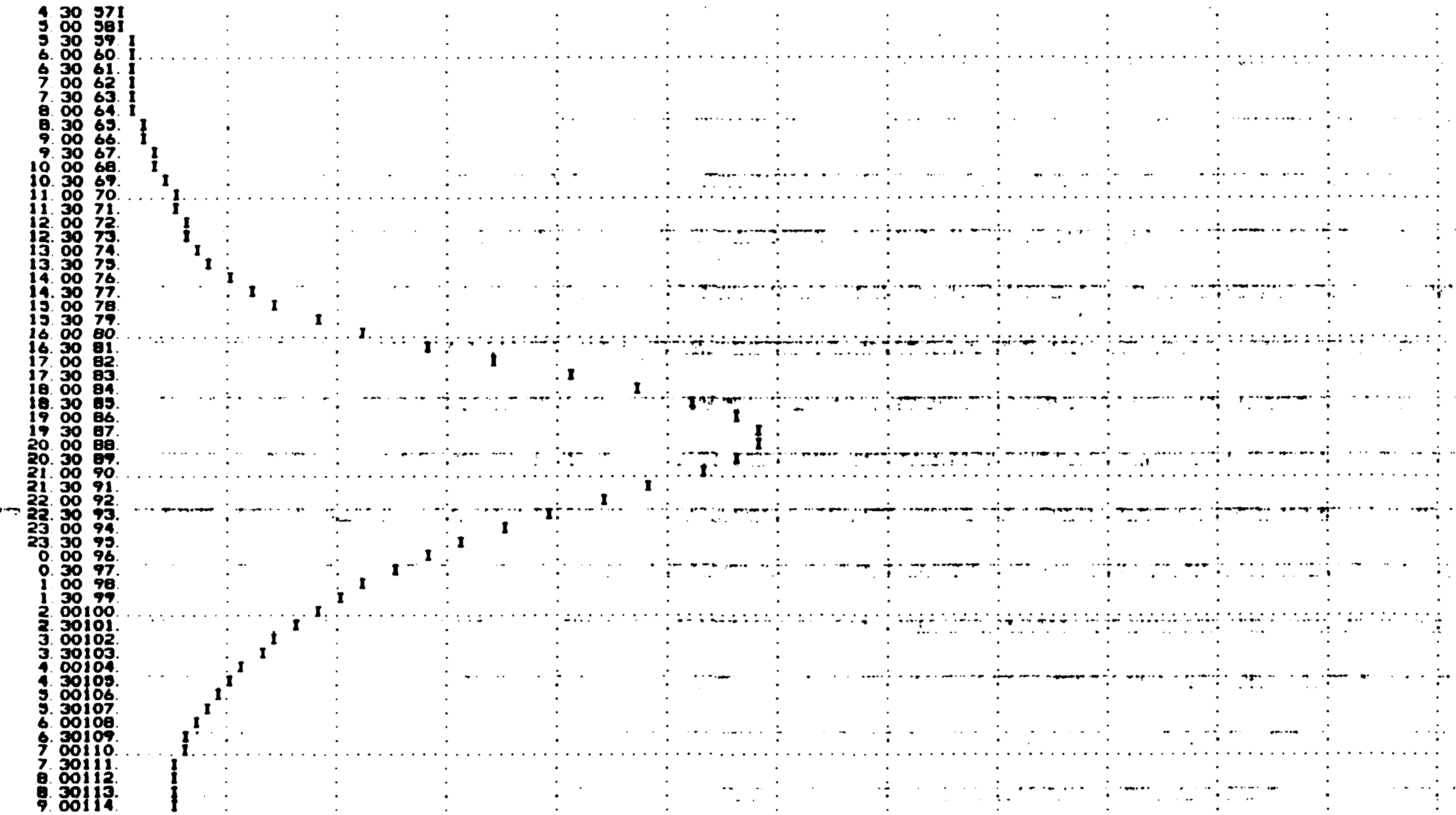
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10.00 68.
10.30 69.
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11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
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16.30 81.
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18.30 85.
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20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.

FLAHERTY GIAVARA ASSOCIATES, P.C.


```
 9.30115.   I
10.00116.  I
10.30117.  I
11.00118.  I
11.30119.  I
12.00120.  I
```

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

21.	20.	20.	19.	18.	17.	17.	16.	16.	15.
14.	14.	13.	13.	12.	12.	12.	11.	11.	11.
10.	10.	10.	10.	9.	9.	9.	9.	9.	9.
9.	9.	10.	10.	11.	12.	12.	12.	12.	12.
12.	11.	11.	10.	9.	8.	8.	7.	7.	9.
13.	19.	28.	39.	52.	66.	80.	94.	107.	118.
133.	160.	204.	269.	356.	462.	383.	713.	845.	971.
1086.	1187.	1297.	1451.	1677.	1996.	2429.	2986.	3666.	4374.
5750.	7068.	8411.	9697.	10803.	11588.	11991.	11985.	11586.	10863.
9964.	9024.	8097.	7227.	6441.	5748.	5137.	4594.	4108.	3671.
3276.	2916.	2589.	2292.	2024.	1784.	1597.	1447.	1314.	1195.
1119.	1075.	1032.	991.	952.	914.	876.	843.	809.	777.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	11991.	10096.	4468.	1845.	221434.
CMS	340.	286.	127.	52.	6270.
INCHES		2.55	4.51	4.66	4.66
MM		64.70	114.52	118.25	118.25
AC-FT		5006.	8862.	9150.	9150.
THOUS CU M		6175.	10930.	11287.	11287.

DVF

STATION 1

```
                              INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
```

```
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
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23.30 47I
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0.30 49I
1.00 50I
1.30 51I
2.00 52I
2.30 53I
3.00 54I
3.30 55I
4.00 56I
4.30 57I
5.00 58I
5.30 59. I
6.00 60. I
6.30 61. I
7.00 62. I
7.30 63. I
8.00 64. I
8.30 65.  I
9.00 66.  I
9.30 67.   I
10.00 68.   I
10.30 69.   I
11.00 70.    I
11.30 71.    I
12.00 72.     I
12.30 73.     I
13.00 74.      I
13.30 75.       I
14.00 76.        I
14.30 77.          I
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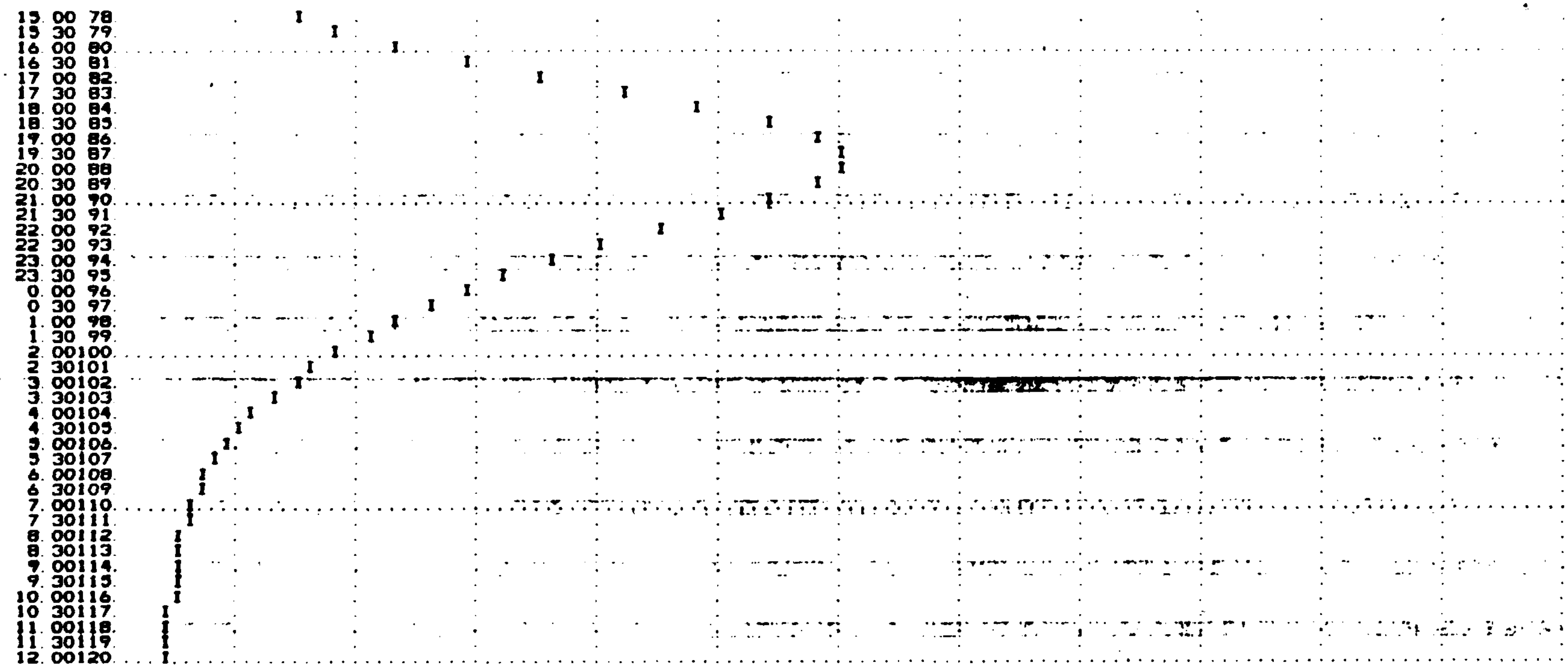

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

22.	21.	20.	19.	19.	18.	17.	17.	16.	16.
15.	14.	14.	13.	13.	12.	12.	12.	11.	11.
11.	10.	10.	10.	10.	9.	9.	9.	9.	9.
9.	10.	10.	11.	11.	12.	13.	13.	13.	13.
12.	12.	11.	10.	9.	9.	8.	7.	7.	9.
13.	20.	29.	40.	54.	68.	83.	97.	110.	122.
137.	169.	211.	278.	367.	477.	603.	737.	873.	1004.
1122.	1227.	1340.	1499.	1732.	2062.	2510.	3085.	3789.	4726.

5942.	7304.	8691.	10020.	11163.	11974.	12390.	12385.	11972.	11225.
10296.	9325.	8367.	7468.	6656.	5940.	5308.	4747.	4245.	3793.
3385.	3013.	2675.	2368.	2091.	1844.	1650.	1496.	1358.	1234.
1157.	1111.	1066.	1024.	983.	944.	907.	871.	836.	803.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12390.	10433.	4617.	1907.	228815.
CMS	351.	295.	131.	54.	6479.
INCHES		2.63	4.66	4.81	4.81
MM		66.86	118.34	122.20	122.20
AC-FT		5173.	9157.	9455.	9455.
THOUS CU M		6381.	11295.	11663.	11663.

```
#OVF#
                                      STATION     1

                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.     2000.     4000.     6000.     8000.    10000.    12000.    14000.       0.       0.       0.       0.       0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
16.30  33I
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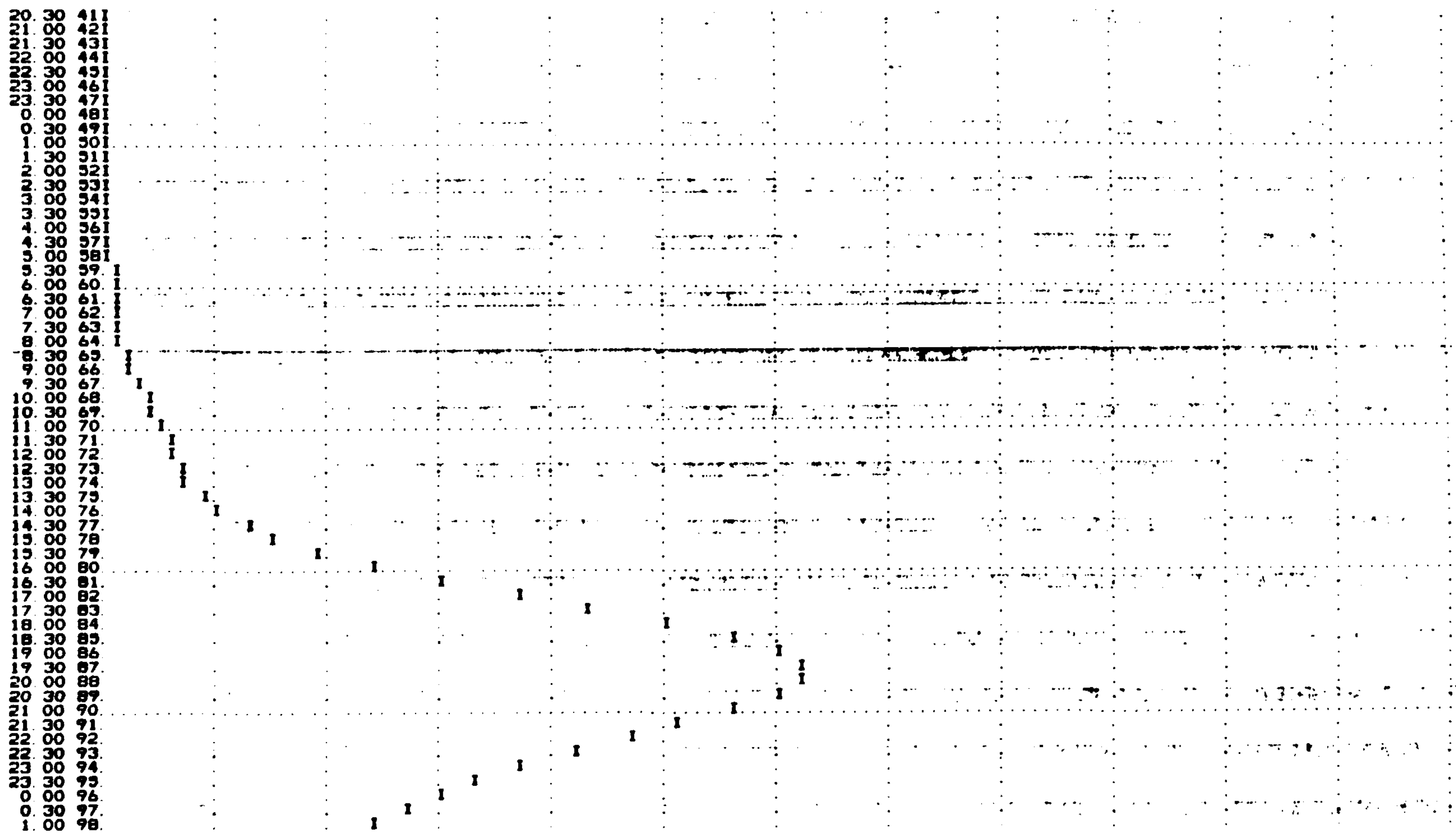
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15.30 79
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17.00 82
17.30 83
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18.30 85
19.00 86
19.30 87
20.00 88
20.30 89
21.00 90
21.30 91
22.00 92
22.30 93
23.00 94
23.30 95
0.00 96
0.30 97
1.00 98

```
 1.30 99.                                  I
 2.00100. . . . . . . . . . . . . . . . . I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 2.30101.                               I
 3.00102.                             I
 3.30103.                           I
 4.00104.                         I
 4.30105.                       I
 5.00106.                     I
 5.30107.                    I
 6.00108.                   I
 6.30109.                   I
 7.00110. . . . . . . . . .I . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 7.30111.                  I
 8.00112.                  I
 8.30113.                 I
 9.00114.                 I
 9.30115.                 I
10.00116.                 I
10.30117.                 I
11.00118.                I
11.30119.                I
12.00120. . . . . . . . .I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
```

OVN

SUM OF 2 HYDROGRAPHS AT I PLAN 1 RTIO 5

23.	22.	21.	20.	19.	19.	18.	17.	17.	16.
15.	15.	14.	14.	13.	13.	12.	12.	12.	11.
11.	11.	10.	10.	10.	10.	9.	9.	9.	9.
10.	10.	10.	11.	12.	12.	13.	13.	13.	13.
13.	12.	11.	10.	10.	9.	8.	8.	8.	9.
14.	20.	30.	41.	55.	70.	86.	100.	114.	126.
141.	170.	218.	287.	379.	493.	622.	761.	902.	1036.
1159.	1267.	1383.	1547.	1788.	2129.	2591.	3185.	3911.	4879.
6134.	7539.	8972.	10344.	11523.	12361.	12790.	12784.	12358.	11588.
10629.	9625.	8637.	7708.	6870.	6131.	5479.	4900.	4382.	3916.
3494.	3110.	2761.	2445.	2159.	1903.	1703.	1544.	1402.	1274.
1194.	1146.	1101.	1057.	1015.	975.	938.	899.	863.	829.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12790.	10769.	4766.	1968.	236196.
CMS	362.	305.	135.	56.	6688.
INCHES		2.72	4.81	4.97	4.97
MM		69.02	122.16	126.14	126.14
AC-FT		5340.	9452.	9760.	9760.
THOUS CU M		6587.	11659.	12039.	12039.

OVF

STATION 1

```
                   INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.    2000.    4000.    6000.    8000.   10000.   12000.   14000.      0.      0.      0.      0.      0.
 0.30   1I
 1.00   2I
 1.30   3I
```

2.00	4I
2.30	5I
3.00	6I
3.30	7I
4.00	8I
4.30	9I
5.00	10I
5.30	11I
6.00	12I
6.30	13I
7.00	14I
7.30	15I
8.00	16I
8.30	17I
9.00	18I
9.30	19I
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11.30	23I
12.00	24I
12.30	25I
13.00	26I
13.30	27I
14.00	28I
14.30	29I
15.00	30I
15.30	31I
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16.30	33I
17.00	34I
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18.00	36I
18.30	37I
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20.00	40I
20.30	41I
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22.00	44I
22.30	45I
23.00	46I
23.30	47I
0.00	48I
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1.00	50I
1.30	51I
2.00	52I
2.30	53I
3.00	54I
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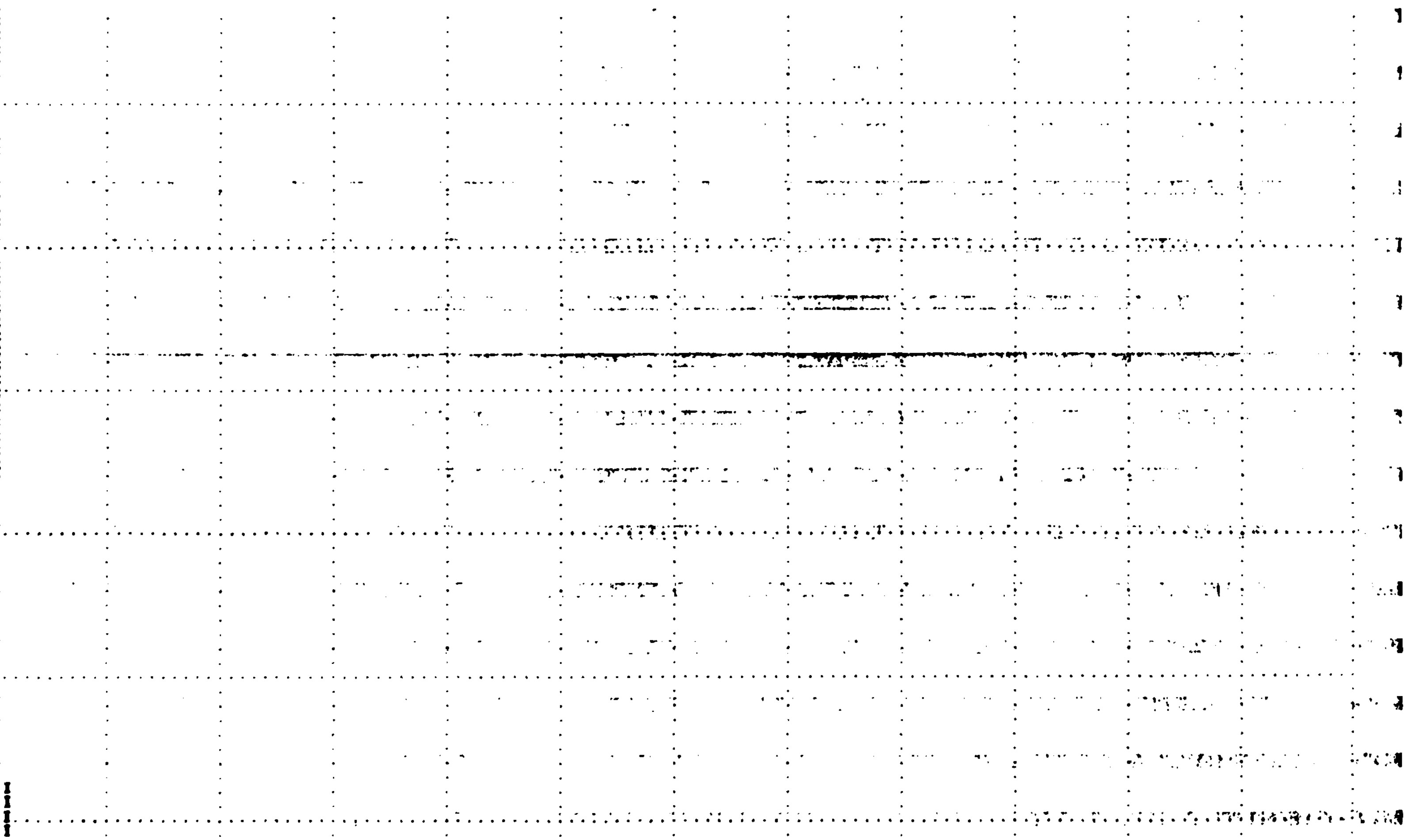

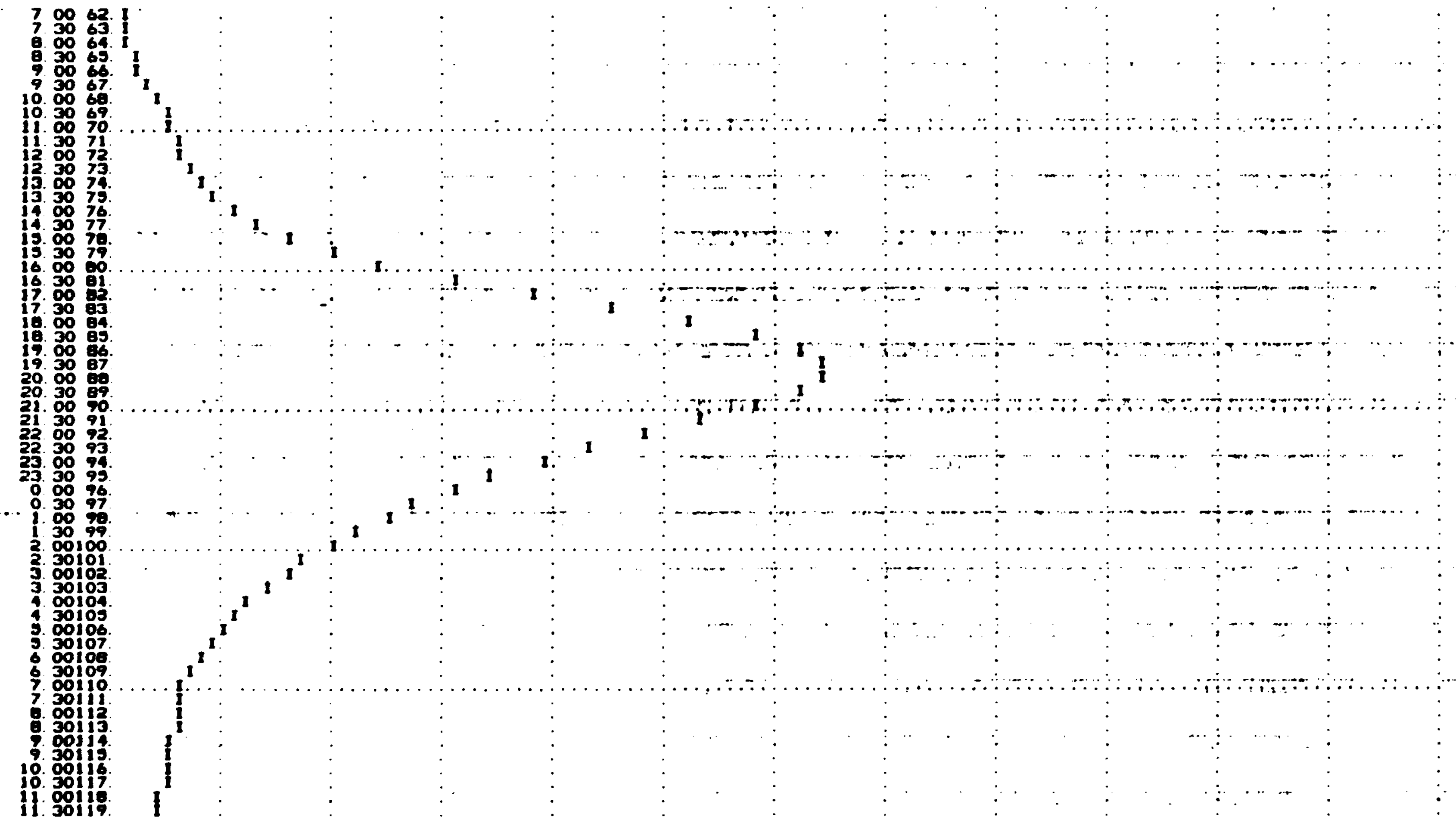
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10.30117.
11.00118.
11.30119.

12.00120. . . . I. I

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

23.	22.	22.	21.	20.	19.	18.	18.	17.	17.
16.	15.	15.	14.	14.	13.	13.	12.	12.	12.
11.	11.	11.	10.	10.	10.	10.	10.	10.	10.
10.	10.	11.	11.	12.	13.	13.	14.	14.	14.
13.	12.	12.	11.	10.	9.	9.	8.	8.	10.
14.	21.	30.	43.	57.	73.	88.	104.	117.	130.
146.	176.	225.	296.	391.	508.	642.	785.	930.	1069.
1195.	1306.	1427.	1596.	1844.	2196.	2671.	3284.	4033.	5031.
6325.	7775.	9252.	10667.	11883.	12747.	13190.	13184.	12744.	11950.
10961.	9926.	8907.	7949.	7085.	6323.	5651.	5053.	4519.	4038.
3603.	3208.	2847.	2521.	2226.	1963.	1756.	1592.	1449.	1314.
1231.	1182.	1135.	1090.	1047.	1005.	965.	927.	890.	855.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13190.	11106.	4914.	2030.	243577.
CMS	373.	314.	139.	57.	6897.
INCHES		2.80	4.96	5.12	5.12
MM		71.17	125.98	130.08	130.08
AC-FT		5507.	9748.	10065.	10065.
THOUS CU M		6793.	12024.	12415.	12415.

OVF

STATION 1

```
                                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
  9.00  18I
  9.30  19I
 10.00  20I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
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 11.00  22I
 11.30  23I
 12.00  24I
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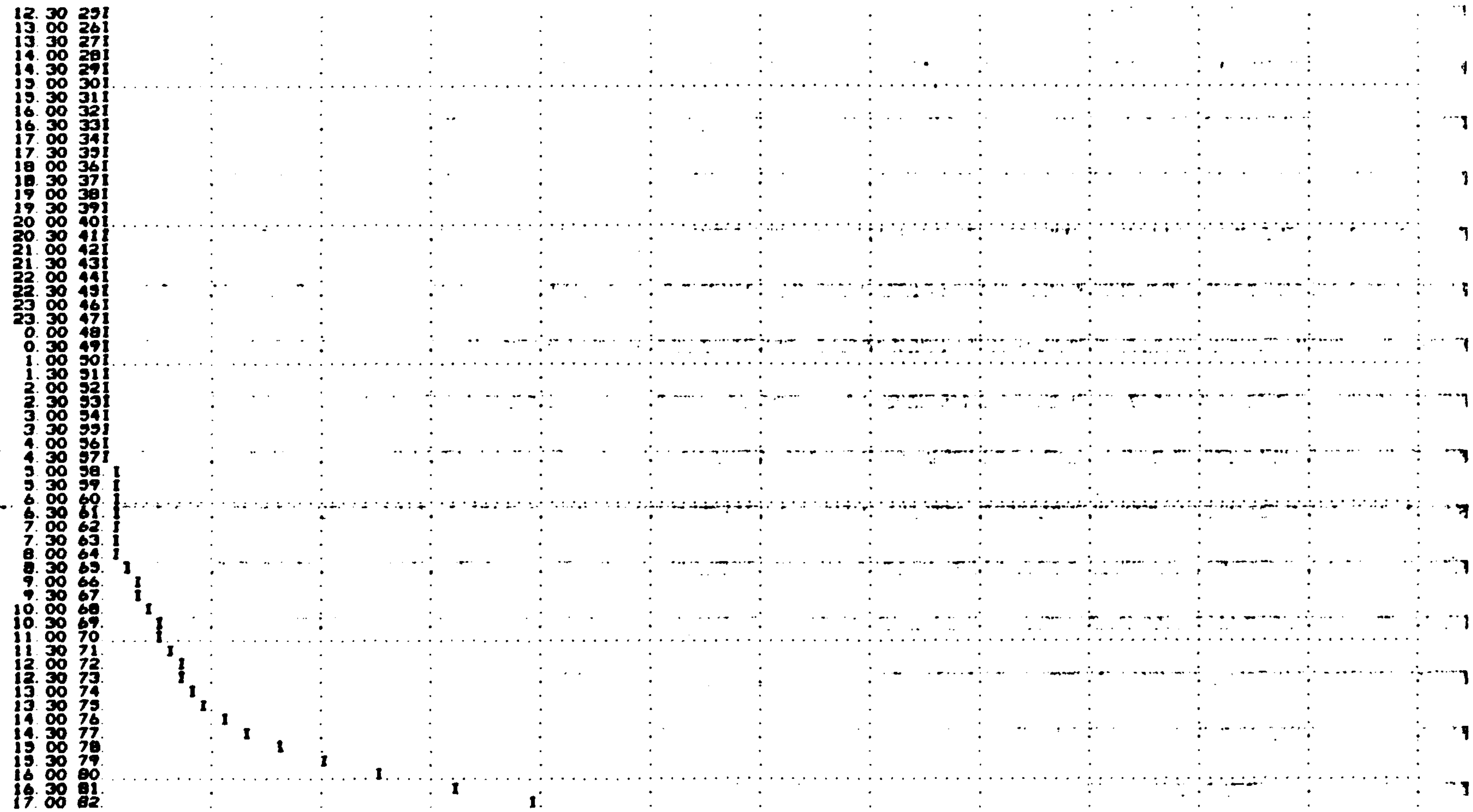
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19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
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0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
6.30 61
7.00 62
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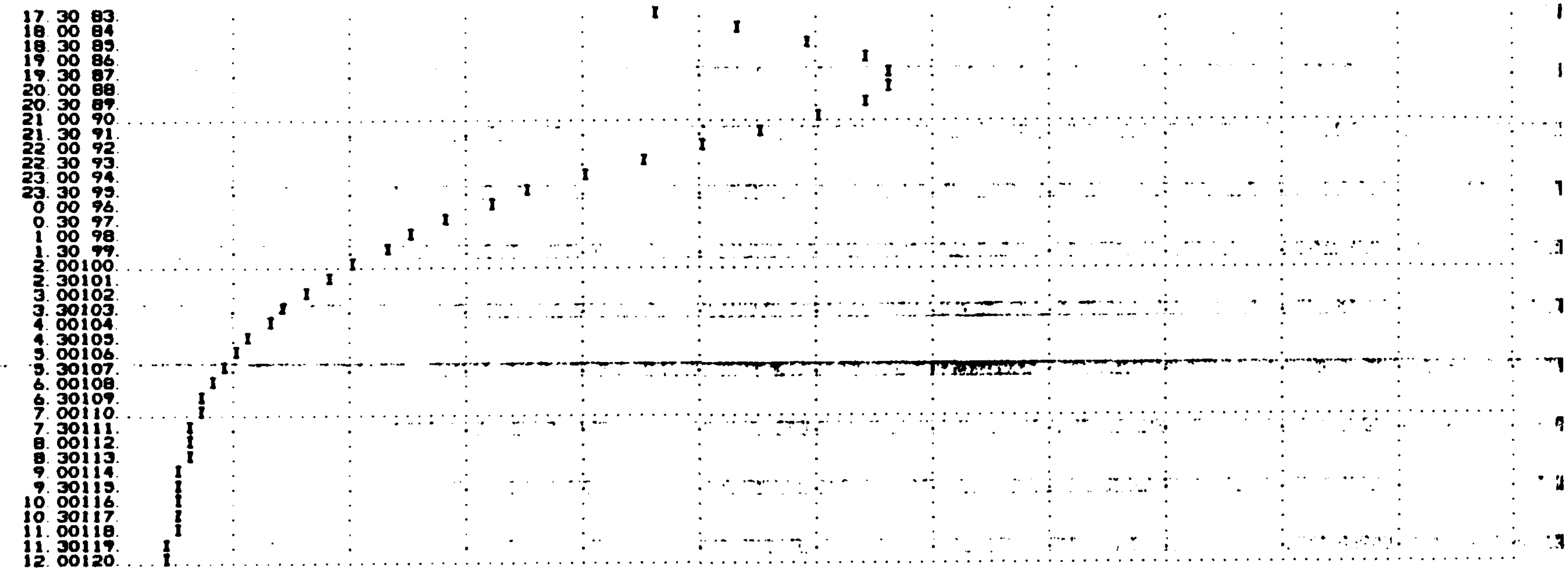

#OVN#

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

24.	23.	22.	21.	21.	20.	19.	18.	18.	17.
16.	16.	15.	15.	14.	14.	13.	13.	12.	12.
12.	11.	11.	11.	10.	10.	10.	10.	10.	10.
10.	11.	11.	12.	13.	13.	14.	14.	14.	14.
13.	13.	12.	11.	10.	9.	9.	8.	8.	10.
14.	21.	31.	44.	59.	75.	91.	107.	121.	134.
150.	181.	231.	305.	403.	524.	661.	809.	958.	1101.
1231.	1346.	1470.	1644.	1900.	2262.	2752.	3384.	4155.	5184.
6517.	8011.	9533.	10990.	12243.	13133.	13589.	13583.	13131.	12312.
11293.	10227.	9177.	8190.	7300.	6515.	5822.	5206.	4656.	4161.
3712.	3305.	2934.	2597.	2294.	2022.	1809.	1640.	1489.	1354.
1268.	1218.	1170.	1123.	1079.	1036.	995.	955.	917.	881.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13589.	11443.	5063.	2091.	250958.
CMS	385.	324.	143.	59.	7106.
INCHES		2.89	5.11	5.28	5.28
MM		73.33	129.79	134.02	134.02
AC-FT		5674.	10043.	10370.	10370.
THOUS CU M		6999.	12388.	12791.	12791.

DVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.    2000.    4000.    6000.    8000.    10000.    12000.    14000.    0.    0.    0.    0.    0.
 0 30   1I
 1.00   2I
 1 30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4 30   9I
 5 00  10I.......................................................................................
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9 00  18I
 9.30  19I
10.00  20I.......................................................................................
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I.......................................................................................
15.30  31I
16.00  32I
16.30  33I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
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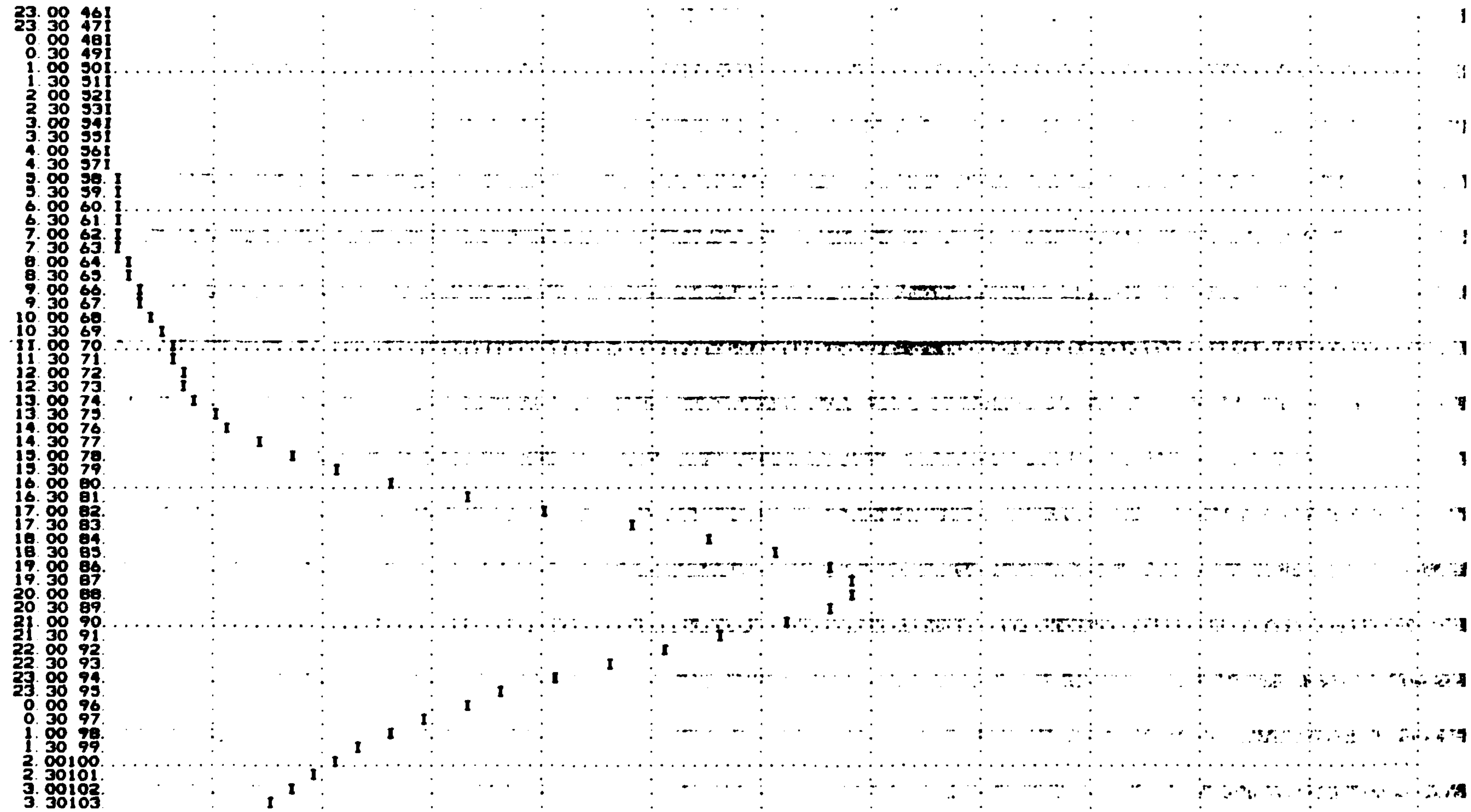
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10.30117. I
11.00118. I
11.30119. I
12.00120.I
```

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

35.	34.	33.	31.	30.	29.	28.	27.	26.	25.
24.	23.	22.	22.	21.	20.	19.	19.	18.	18.
17.	17.	16.	16.	15.	15.	15.	15.	15.	15.
15.	16.	16.	17.	18.	19.	20.	21.	21.	20.
20.	19.	18.	16.	15.	14.	13.	12.	12.	15.
21.	31.	46.	65.	86.	110.	134.	157.	178.	196.
221.	266.	340.	449.	593.	770.	972.	1189.	1409.	1619.
1810.	1979.	2161.	2418.	2794.	3327.	4048.	4976.	6111.	7623.
9584.	11780.	14018.	16162.	18005.	19313.	19984.	19975.	19310.	18106.
16607.	15040.	13495.	12044.	10735.	9580.	8562.	7656.	6847.	6119.
5459.	4860.	4314.	3820.	3373.	2974.	2661.	2412.	2190.	1991.
1865.	1791.	1720.	1652.	1586.	1523.	1463.	1404.	1349.	1295.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19984.	16827.	7446.	3075.	369056.
CMS	566.	476.	211.	87.	10450.
INCHES		4.25	7.51	7.76	7.76
MM		107.84	190.87	197.09	197.09
AC-FT		8344.	14769.	15250.	15250.
THOUS CU M		10292.	18217.	18811.	18811.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
         0     2000.    4000.    6000.    8000.   10000.   12000.   14000.   16000.   18000.   20000.    0.    0.
0.30    1I
1.00    2I
1.30    3I
2.00    4I
2.30    5I
3.00    6I
3.30    7I
4.00    8I
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 4.30  9I
 5.00 10I
 5.30 11I
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 3.30 55I
 4.00 56. I
 4.30 57. I
 5.00 58. I
 5.30 59. I
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 9.00 66.    I
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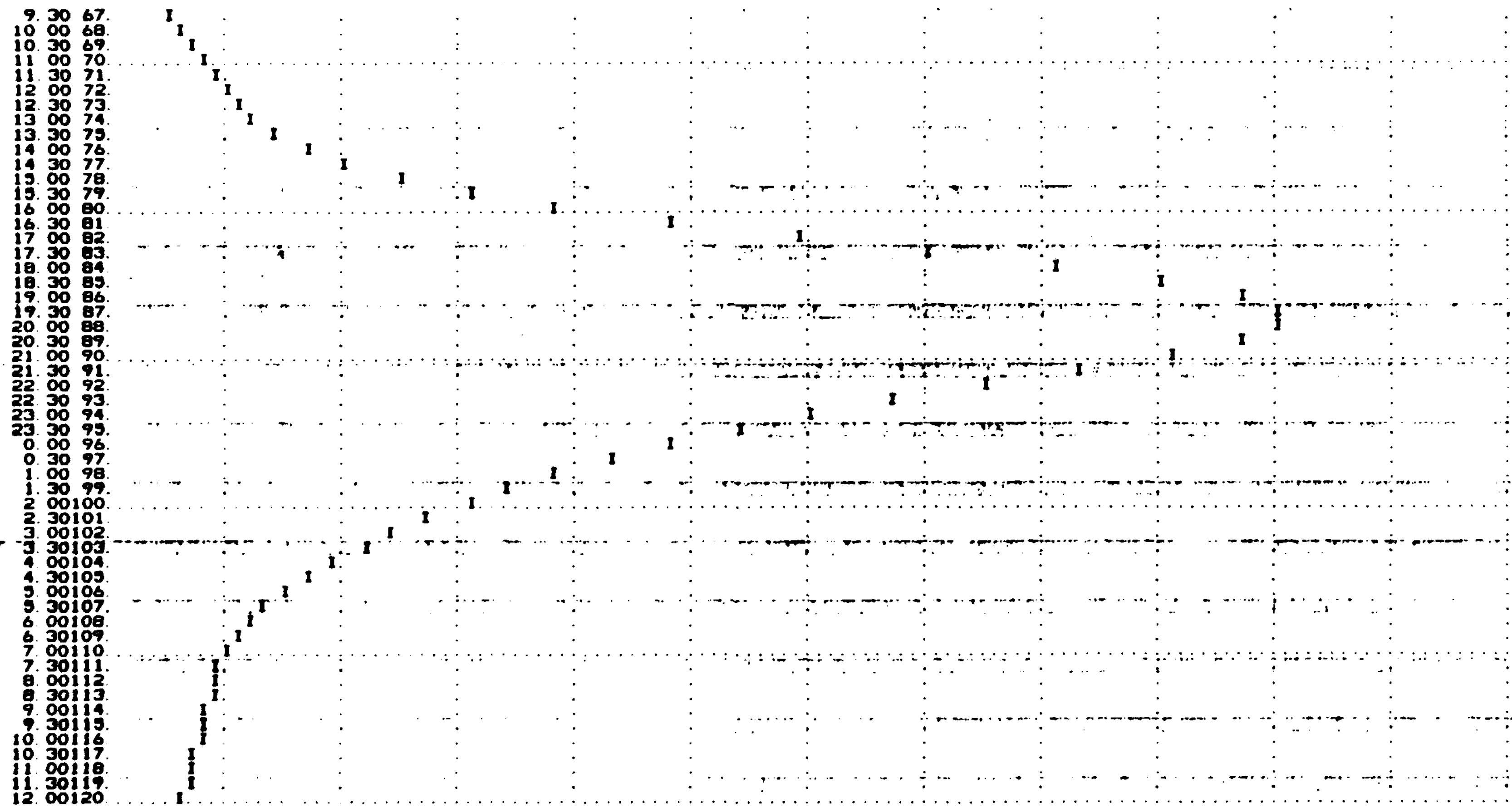
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10.30117.
11.00118.
11.30119.
12.00120.

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

71.	68.	65.	63.	60.	58.	56.	54.	52.	50.
48.	46.	45.	43.	42.	40.	39.	38.	37.	36.
35.	34.	33.	32.	31.	30.	30.	29.	29.	29.
30.	31.	33.	35.	37.	39.	40.	41.	42.	41.
40.	38.	35.	33.	30.	28.	26.	24.	24.	30.
42.	63.	92.	130.	173.	220.	268.	314.	356.	393.
442.	532.	681.	897.	1185.	1540.	1945.	2378.	2817.	3238.
3621.	3958.	4323.	4835.	5588.	6653.	8095.	9952.	12222.	15246.
19168.	23560.	28037.	32324.	36009.	38627.	39969.	39950.	38619.	36211.
33214.	30079.	26991.	24089.	21470.	19161.	17123.	15313.	13694.	12237.
10918.	9720.	8629.	7639.	6746.	5947.	5322.	4825.	4380.	3982.
3731.	3582.	3440.	3303.	3172.	3046.	2925.	2809.	2697.	2590.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	39969.	33655.	14892.	6151.	738112.
CMS	1132.	953.	422.	174.	20901.
INCHES		8.49	15.03	15.52	15.52
MM		215.67	381.74	394.18	394.18
AC-FT		16688.	29538.	30500.	30500.
THOUS CU M		20585.	36435.	37622.	37622.

```
#OVF#
                                    STATION     1

                        INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.    32000.    36000.    40000.        0.        0.
  0.30      1I
  1.00      2I
  1.30      3I
  2.00      4I
  2.30      5I
  3.00      6I
  3.30      7I
  4.00      8I
  4.30      9I
  5.00     10I
  5.30     11I
  6.00     12I
  6.30     13I
  7.00     14I
  7.30     15I
  8.00     16I
  8.30     17I
  9.00     18I
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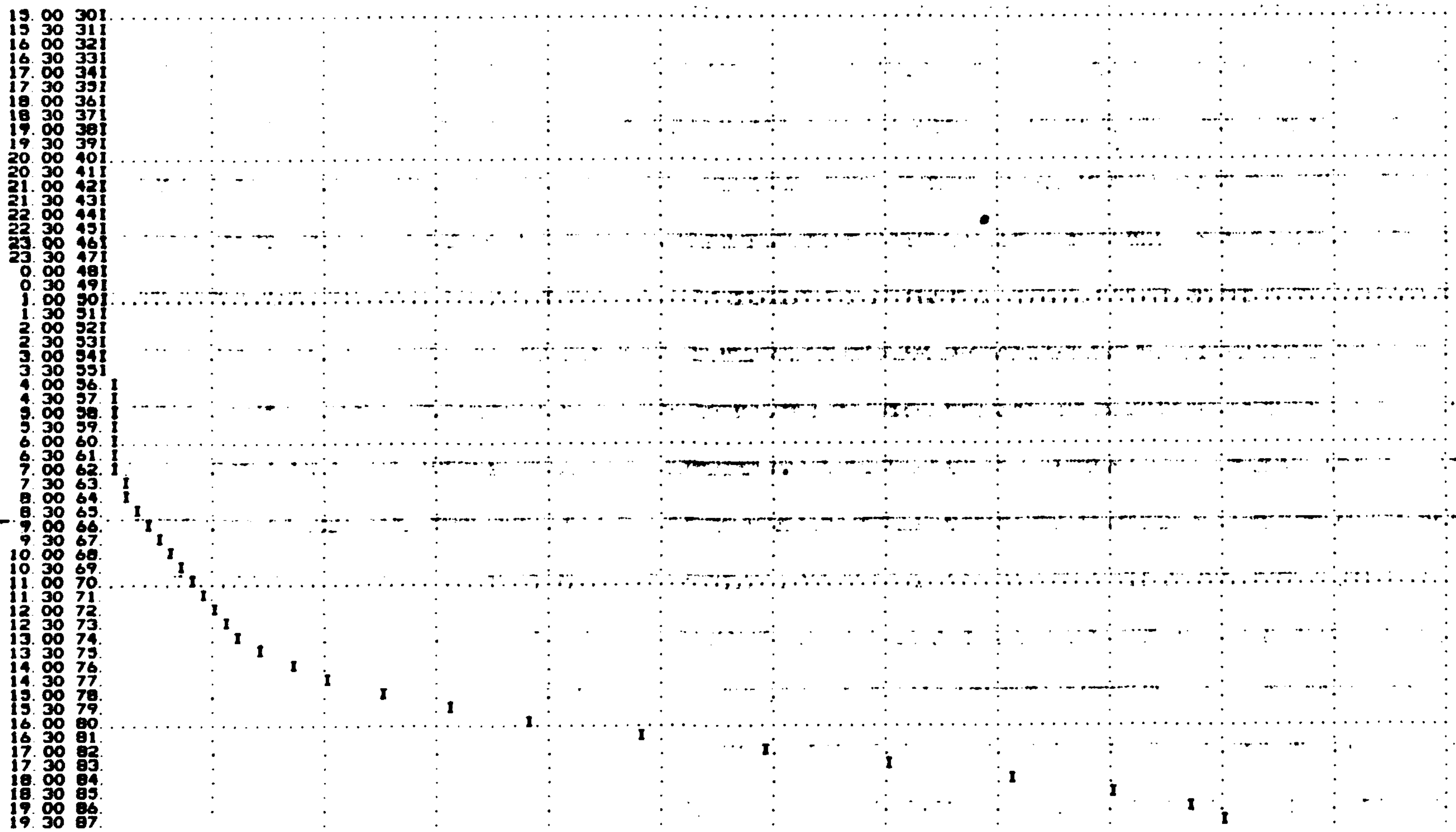
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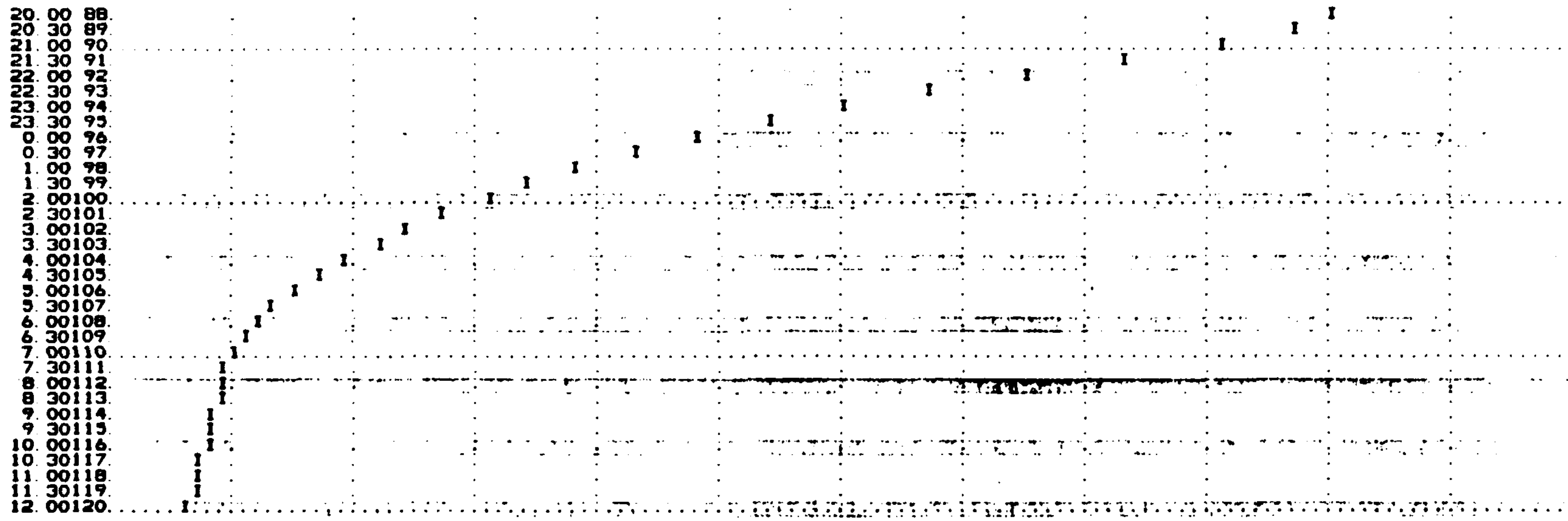


OVN

********** ********** ********** ********** **********

SUB-AREA RUNOFF COMPUTATION

INFLOW HYDROGRAPH - SUBWATERSHED NO. 3

ISTAG	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	0	0	0	0	0	1	0	0

HYDROGRAPH DATA

IHYDG	IUHG	TAREA	SNAP	TRSDA	TRSPC	RATIO	ISNOW	ISAME	LOCAL
1	1	17.47	0.00	17.47	0.00	0.000	0	1	0

PRECIP DATA

SPFE	PMS	R6	R12	R24	R48	R72	R96
0.00	19.30	86.00	100.00	112.00	119.00	0.00	0.00

TRSPC COMPUTED BY THE PROGRAM IS 0.819

LOSS DATA

LROPT	STRKR	DLTKR	RTIOL	ERAIN	STRKS	RTIOK	STRTL	CNSTL	ALSMX	RTIMP
0	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.10	0.00	0.01

UNIT HYDROGRAPH DATA
TP= 5.76   CP=0.63   NTA= 0

RECESSION DATA
STRTQ= -2.00   QRCSN= -0.10   RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC=12.86 AND R=10.42 INTERVALS

UNIT HYDROGRAPH 63 END-OF-PERIOD ORDINATES, LAG= 5.72 HOURS, CP= 0.63 VOL= 1.00

32.	118.	240.	382.	536.	699.	864.	1013.	1129.	1212.
1260.	1273.	1237.	1149.	1044.	948.	861.	782.	711.	646.
586.	533.	484.	440.	399.	363.	329.	299.	272.	247.
224.	204.	185.	168.	153.	139.	126.	115.	104.	94.
86.	78.	71.	64.	58.	53.	48.	44.	40.	36.
33.	30.	27.	25.	22.	20.	18.	17.	15.	14.
13.	11.	10.							

0
END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	34.	1.02	6.30	61	0.18	0.13	0.05	146.
1.01	1.00	2	0.00	0.00	0.00	32.	1.02	7.00	62	0.18	0.13	0.05	176.
1.01	1.30	3	0.00	0.00	0.00	31.	1.02	7.30	63	0.18	0.13	0.05	219.
1.01	2.00	4	0.00	0.00	0.00	30.	1.02	8.00	64	0.18	0.13	0.05	278.
1.01	2.30	5	0.00	0.00	0.00	29.	1.02	8.30	65	0.18	0.13	0.05	355.
1.01	3.00	6	0.00	0.00	0.00	27.	1.02	9.00	66	0.18	0.13	0.05	450.
1.01	3.30	7	0.00	0.00	0.00	26.	1.02	9.30	67	0.18	0.13	0.05	564.
1.01	4.00	8	0.00	0.00	0.00	25.	1.02	10.00	68	0.18	0.13	0.05	679.
1.01	4.30	9	0.00	0.00	0.00	24.	1.02	10.30	69	0.18	0.13	0.05	840.
1.01	5.00	10	0.00	0.00	0.00	24.	1.02	11.00	70	0.18	0.13	0.05	994.
1.01	5.30	11	0.00	0.00	0.00	23.	1.02	11.30	71	0.18	0.13	0.05	1153.
1.01	6.00	12	0.00	0.00	0.00	22.	1.02	12.00	72	0.18	0.13	0.05	1313.
1.01	6.30	13	0.01	0.00	0.01	21.	1.02	12.30	73	0.68	0.63	0.05	1484.
1.01	7.00	14	0.01	0.00	0.01	20.	1.02	13.00	74	0.68	0.63	0.05	1687.
1.01	7.30	15	0.01	0.00	0.01	20.	1.02	13.30	75	0.82	0.77	0.05	1941.
1.01	8.00	16	0.01	0.00	0.01	19.	1.02	14.00	76	0.82	0.77	0.05	2265.
1.01	8.30	17	0.01	0.00	0.01	18.	1.02	14.30	77	1.02	0.97	0.05	2677.
1.01	9.00	18	0.01	0.00	0.01	18.	1.02	15.00	78	1.02	0.97	0.05	3197.
1.01	9.30	19	0.01	0.00	0.01	17.	1.02	15.30	79	1.24	1.19	0.05	3843.
1.01	10.00	20	0.01	0.00	0.01	16.	1.02	16.00	80	3.92	3.88	0.05	4709.
1.01	10.30	21	0.01	0.00	0.01	16.	1.02	16.30	81	0.95	0.90	0.05	5845.
1.01	11.00	22	0.01	0.00	0.01	15.	1.02	17.00	82	0.95	0.90	0.05	7169.
1.01	11.30	23	0.01	0.00	0.01	15.	1.02	17.30	83	0.75	0.70	0.05	8606.
1.01	12.00	24	0.01	0.00	0.01	15.	1.02	18.00	84	0.75	0.70	0.05	10097.
1.01	12.30	25	0.04	0.00	0.04	14.	1.02	18.30	85	0.09	0.05	0.05	11564.
1.01	13.00	26	0.04	0.00	0.04	14.	1.02	19.00	86	0.09	0.05	0.05	12909.
1.01	13.30	27	0.05	0.00	0.05	13.	1.02	19.30	87	0.09	0.05	0.05	14025.
1.01	14.00	28	0.05	0.00	0.05	13.	1.02	20.00	88	0.09	0.05	0.05	14843.
1.01	14.30	29	0.06	0.00	0.06	13.	1.02	20.30	89	0.09	0.05	0.05	15345.
1.01	15.00	30	0.06	0.00	0.06	13.	1.02	21.00	90	0.09	0.05	0.05	15526.
1.01	15.30	31	0.08	0.00	0.08	13.	1.02	21.30	91	0.09	0.05	0.05	15384.
1.01	16.00	32	0.25	0.00	0.24	13.	1.02	22.00	92	0.09	0.05	0.05	14910.
1.01	16.30	33	0.06	0.00	0.06	13.	1.02	22.30	93	0.09	0.05	0.05	14139.
1.01	17.00	34	0.06	0.00	0.06	14.	1.02	23.00	94	0.09	0.05	0.05	13216.
1.01	17.30	35	0.05	0.00	0.05	14.	1.02	23.30	95	0.09	0.05	0.05	12257.
1.01	18.00	36	0.05	0.00	0.05	15.	1.03	0.00	96	0.09	0.05	0.05	11297.
1.01	18.30	37	0.01	0.00	0.01	16.	1.03	0.30	97	0.00	0.00	0.00	10370.

1.01	19.00	38	0.01	0.00	0.01	16.	1.03	1.00	98	0.00	0.00	0.00	9508.
1.01	19.30	39	0.01	0.00	0.01	17.	1.03	1.30	99	0.00	0.00	0.00	8719.
1.01	20.00	40	0.01	0.00	0.01	17.	1.03	2.00	100	0.00	0.00	0.00	7995.
1.01	20.30	41	0.01	0.00	0.01	17.	1.03	2.30	101	0.00	0.00	0.00	7329.
1.01	21.00	42	0.01	0.00	0.01	17.	1.03	3.00	102	0.00	0.00	0.00	6714.
1.01	21.30	43	0.01	0.00	0.01	16.	1.03	3.30	103	0.00	0.00	0.00	6145.
1.01	22.00	44	0.01	0.00	0.01	16.	1.03	4.00	104	0.00	0.00	0.00	5618.
1.01	22.30	45	0.01	0.00	0.01	15.	1.03	4.30	105	0.00	0.00	0.00	5130.
1.01	23.00	46	0.01	0.00	0.01	14.	1.03	5.00	106	0.00	0.00	0.00	4677.
1.01	23.30	47	0.01	0.00	0.01	14.	1.03	5.30	107	0.00	0.00	0.00	4260.
1.02	0.00	48	0.01	0.00	0.01	13.	1.03	6.00	108	0.00	0.00	0.00	3874.
1.02	0.30	49	0.06	0.01	0.05	12.	1.03	6.30	109	0.00	0.00	0.00	3520.
1.02	1.00	50	0.06	0.01	0.05	13.	1.03	7.00	110	0.00	0.00	0.00	3198.
1.02	1.30	51	0.06	0.01	0.05	16.	1.03	7.30	111	0.00	0.00	0.00	2905.
1.02	2.00	52	0.06	0.01	0.05	20.	1.03	8.00	112	0.00	0.00	0.00	2639.
1.02	2.30	53	0.06	0.01	0.05	27.	1.03	8.30	113	0.00	0.00	0.00	2397.
1.02	3.00	54	0.06	0.01	0.05	36.	1.03	9.00	114	0.00	0.00	0.00	2177.
1.02	3.30	55	0.06	0.01	0.05	48.	1.03	9.30	115	0.00	0.00	0.00	1978.
1.02	4.00	56	0.06	0.01	0.05	61.	1.03	10.00	116	0.00	0.00	0.00	1796.
1.02	4.30	57	0.06	0.01	0.05	76.	1.03	10.30	117	0.00	0.00	0.00	1632.
1.02	5.00	58	0.06	0.01	0.05	92.	1.03	11.00	118	0.00	0.00	0.00	1524.
1.02	5.30	59	0.06	0.01	0.05	109.	1.03	11.30	119	0.00	0.00	0.00	1463.
1.02	6.00	60	0.06	0.01	0.05	126.	1.03	12.00	120	0.00	0.00	0.00	1405.

18.81 15.33 3.47 334814.
(478.)(389.)(88.)(9475.20)

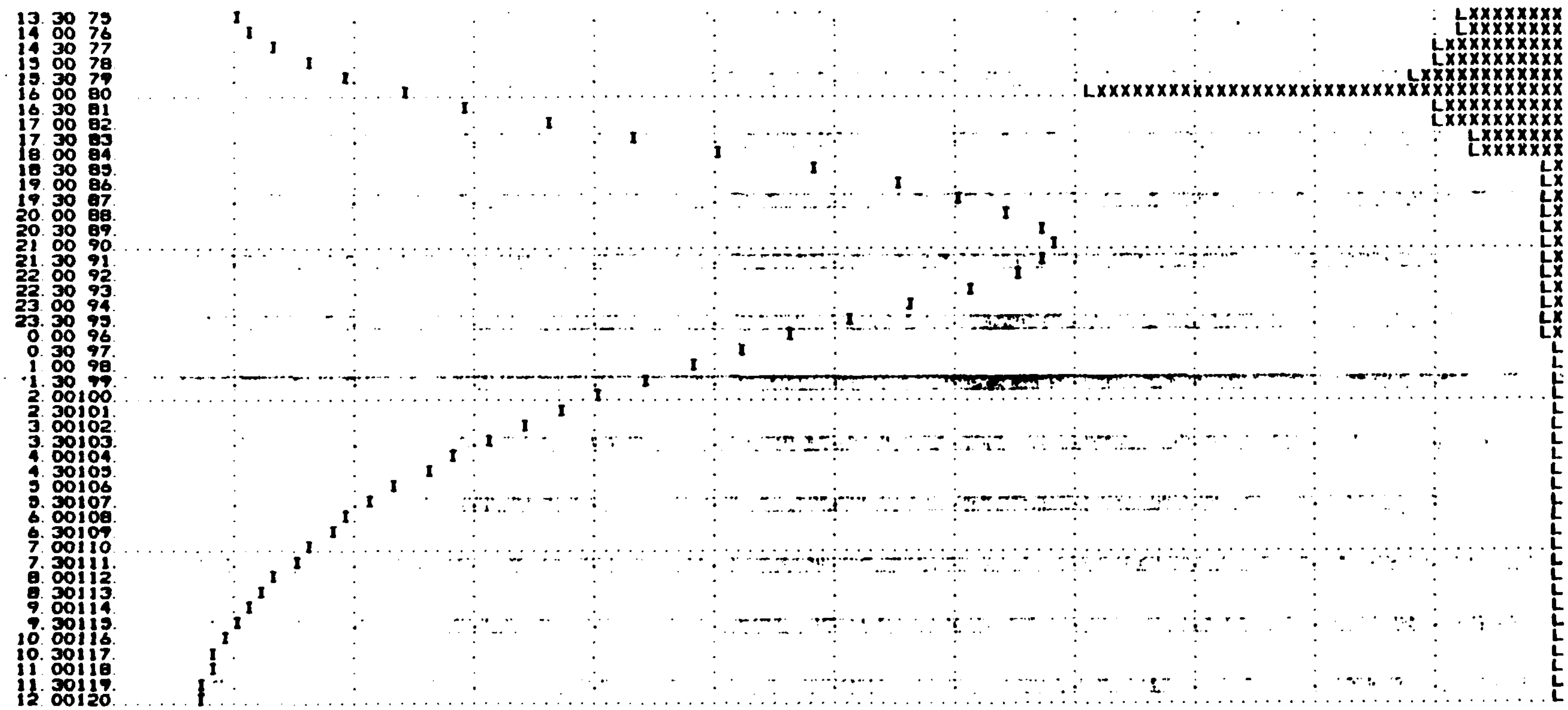
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15526.	13735.	6789.	2782.	333896.
CMS	440.	389.	192.	79.	9455.
INCHES		7.31	14.46	14.82	14.82
MM		185.76	367.27	376.32	376.32
AC-FT		6811.	13465.	13797.	13797.
THOUS CU M		8401.	16609.	17019.	17019.

OVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
       0     2000.     4000.     6000.     8000.    10000.    12000.    1000.    16000.      0.       0.       0.      0.
                                                                                             PRECIP(L) AND EXCESS(X)
       0.       0.       0.       0.       0.       0.       0.       0.       4.       3.       2.       1.      0.
0.30  11                                                                                                          L
1.00  21                                                                                                          L
1.30  31                                                                                                          L
2.00  41                                                                                                          L
2.30  51                                                                                                          L
3.00  61                                                                                                          L
3.30  71                                                                                                          L
4.00  81                                                                                                          L
4.30  91                                                                                                          L
5.00 101. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .L
5.30 111                                                                                                          L
6.00 121                                                                                                          L
6.30 131                                                                                                          L
7.00 141                                                                                                          L
7.30 151                                                                                                          L
8.00 161                                                                                                          L
```

```
 8.30 17I                                                        L
 9.00 18I                                                        L
 9.30 19I                                                        L
10.00 20I                                                        L
10.30 21I                                                        L
11.00 22I                                                        L
11.30 23I                                                        L
12.00 24I                                                        L
12.30 25I                                                        L
13.00 26I                                                        L
13.30 27I                                                       LX
14.00 28I                                                       LX
14.30 29I                                                       LX
15.00 30I                                                       LX
15.30 31I                                                       LX
16.00 32I                                                      LLX
16.30 33I                                                       LX
17.00 34I                                                       LX
17.30 35I                                                        L
18.00 36I                                                        L
18.30 37I                                                        L
19.00 38I                                                        L
19.30 39I                                                        L
20.00 40I                                                        L
20.30 41I                                                        L
21.00 42I                                                        L
21.30 43I                                                        L
22.00 44I                                                        L
22.30 45I                                                        L
23.00 46I                                                        L
23.30 47I                                                        L
 0.00 48I                                                        L
 0.30 49I                                                       LX
 1.00 50I                                                       LX
 1.30 51I                                                       LX
 2.00 52I                                                       LX
 2.30 53I                                                       LX
 3.00 54I                                                       LX
 3.30 55I                                                       LX
 4.00 56I                                                       LX
 4.30 57I                                                       LX
 5.00 58I                                                       LX
 5.30 59. I                                                     LX
 6.00 60. I                                                     LX
 6.30 61. I                                                    LXX
 7.00 62. I                                                    LXX
 7.30 63. I                                                    LXX
 8.00 64. I                                                    LXX
 8.30 65.  I                                                   LXX
 9.00 66.  I                                                   LXX
 9.30 67.   I                                                  LXX
10.00 68.   I                                                  LXX
10.30 69.    I                                                 LXX
11.00 70.     I                                                LXX
11.30 71.      I                                               LXX
12.00 72.       I                                              LXX
12.30 73.       I                                          LXXXXXXX
13.00 74         I                                         LXXXXXXX
```



DVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

7.	6.	6.	6.	6.	5.	5.	5.	5.	5.
5.	4.	4.	4.	4.	4.	4.	4.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	2.	3.
3.	4.	5.	7.	10.	12.	15.	18.	22.	25.

29.	35.	44.	56.	71.	90.	113.	139.	168.	199.
231.	263.	297.	337.	388.	453.	535.	639.	769.	942.
1169.	1434.	1721.	2019.	2313.	2582.	2805.	2969.	3069.	3105.
3077.	2982.	2828.	2643.	2451.	2259.	2074.	1902.	1744.	1599.
1466.	1343.	1229.	1124.	1026.	935.	852.	775.	704.	640.
581.	528.	479.	435.	396.	359.	326.	305.	293.	281.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3105.	2747.	1358.	556.	66779.
CMS	88.	78.	38.	16.	1891.
INCHES		1.46	2.89	2.96	2.96
MM		37.15	73.45	75.26	75.26
AC-FT		1362.	2693.	2759.	2759.
THOUS CU M		1680.	3322.	3404.	3404.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

10.	9.	9.	9.	8.	8.	8.	7.	7.	7.
7.	6.	6.	6.	6.	5.	5.	5.	5.	5.
5.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	4.	5.	5.	5.	5.
5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
5.	6.	8.	11.	14.	18.	22.	27.	32.	37.
42.	51.	64.	81.	103.	130.	164.	202.	244.	288.
334.	381.	430.	489.	563.	657.	776.	927.	1114.	1366.
1695.	2079.	2496.	2928.	3354.	3744.	4067.	4304.	4450.	4503.
4461.	4324.	4100.	3833.	3554.	3276.	3007.	2757.	2529.	2319.
2125.	1947.	1782.	1629.	1488.	1356.	1235.	1124.	1021.	927.
842.	765.	695.	631.	574.	521.	473.	442.	424.	407.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4503.	3983.	1969.	807.	96830.
CMS	127.	113.	56.	23.	2742.
INCHES		2.12	4.19	4.30	4.30
MM		53.87	106.51	109.13	109.13
AC-FT		1975.	3905.	4001.	4001.
THOUS CU M		2436.	4817.	4935.	4935.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

10.	10.	9.	9.	9.	8.	8.	8.	7.	7.
7.	7.	6.	6.	6.	6.	5.	5.	5.	5.
5.	5.	5.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	5.	5.	5.	5.	5.
5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
5.	6.	8.	11.	14.	18.	23.	28.	33.	38.
44.	53.	66.	83.	106.	135.	169.	209.	252.	298.
346.	394.	445.	506.	582.	679.	803.	959.	1153.	1413.
1753.	2151.	2582.	3029.	3469.	3873.	4207.	4453.	4604.	4658.
4615.	4473.	4242.	3965.	3677.	3389.	3111.	2853.	2616.	2399.
2199.	2014.	1844.	1685.	1539.	1403.	1278.	1162.	1056.	959.
871.	792.	719.	653.	593.	539.	490.	457.	439.	421.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4658.	4120.	2037.	835.	100169.
CMS	132.	117.	58.	24.	2836.
INCHES		2.19	4.34	4.44	4.44
MM		55.73	110.18	112.90	112.90

AC-FT	2043.	4040.	4139.	4139.
THOUS CU M	2520.	4983.	5106.	5106.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

10.	10.	10.	9.	9.	9.	8.	8.	8.	7.
7.	7.	7.	6.	6.	6.	6.	5.	5.	5.
5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	4.	5.	5.	5.	5.	5.
5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
5.	6.	8.	11.	15.	19.	24.	29.	34.	39.
45.	55.	68.	86.	110.	139.	175.	216.	260.	308.
357.	407.	460.	523.	602.	702.	830.	991.	1191.	1460.
1812.	2222.	2668.	3130.	3585.	4002.	4348.	4601.	4757.	4813.
4769.	4622.	4383.	4097.	3800.	3502.	3215.	2948.	2703.	2479.
2272.	2081.	1905.	1742.	1590.	1450.	1320.	1201.	1091.	991.
901.	818.	743.	675.	613.	557.	506.	472.	454.	436.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4813.	4258.	2105.	863.	103508.
CMS	136.	121.	60.	24.	2931.
INCHES		2.27	4.48	4.59	4.59
MM		57.59	113.85	116.66	116.66
AC-FT		2111.	4174.	4277.	4277.
THOUS CU M		2604.	5149.	5276.	5276.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

11.	10.	10.	10.	9.	9.	8.	8.	8.	8.
7.	7.	7.	6.	6.	6.	6.	6.	5.	5.
5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
4.	4.	4.	4.	5.	5.	5.	5.	5.	5.
5.	5.	5.	5.	5.	5.	4.	4.	4.	4.
5.	7.	9.	12.	15.	20.	24.	29.	35.	40.
47.	56.	70.	89.	113.	144.	180.	223.	269.	318.
369.	420.	475.	540.	621.	725.	857.	1023.	1230.	1507.
1870.	2294.	2754.	3231.	3701.	4131.	4488.	4750.	4910.	4968.
4923.	4771.	4525.	4229.	3922.	3615.	3319.	3043.	2790.	2559.
2345.	2148.	1966.	1798.	1641.	1497.	1363.	1240.	1127.	1023.
930.	844.	767.	697.	633.	575.	522.	488.	468.	450.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4768.	4395.	2172.	890.	106847.
CMS	141.	124.	62.	25.	3026.
INCHES		2.34	4.63	4.74	4.74
MM		59.44	117.53	120.42	120.42
AC-FT		2179.	4309.	4415.	4415.
THOUS CU M		2688.	5315.	5446.	5446.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

11.	11.	10.	10.	9.	9.	9.	8.	8.	8.
7.	7.	7.	7.	6.	6.	6.	6.	6.	5.
5.	5.	5.	5.	5.	5.	4.	4.	4.	4.
4.	4.	4.	5.	5.	5.	5.	5.	5.	6.
6.	6.	5.	5.	5.	5.	4.	4.	4.	4.
5.	7.	9.	12.	16.	20.	25.	30.	36.	42.
48.	58.	72.	92.	117.	148.	186.	229.	277.	328.

380.	433.	490.	557.	640.	747.	883.	1055.	1268.	1554.
1929.	2366.	2840.	3332.	3816.	4260.	4628.	4898.	5064.	5124.
5077.	4920.	4666.	4361.	4045.	3728.	3422.	3138.	2877.	2638.
2419.	2216.	2028.	1854.	1693.	1544.	1406.	1278.	1162.	1055.
959.	871.	791.	718.	653.	593.	538.	503.	483.	464.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5124.	4532.	2240.	918.	110186.
CMS	145.	128.	63.	26.	3120.
INCHES		2.41	4.77	4.89	4.89
MM		61.30	121.20	124.19	124.19
AC-FT		2248.	4444.	4553.	4553.
THOUS CU M		2772.	5481.	5616.	5616.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

11.	11.	11.	10.	10.	9.	9.	9.	8.	8.
8.	7.	7.	7.	7.	6.	6.	6.	6.	6.
5.	5.	5.	5.	5.	5.	5.	5.	4.	4.
4.	4.	5.	5.	5.	5.	5.	6.	6.	6.
6.	6.	6.	5.	5.	5.	5.	4.	4.	5.
5.	7.	9.	12.	16.	21.	26.	31.	37.	43.
50.	60.	75.	95.	121.	153.	192.	236.	286.	338.
392.	446.	505.	573.	660.	770.	910.	1087.	1307.	1601.
1987.	2438.	2926.	3433.	3932.	4389.	4768.	5046.	5217.	5279.
5231.	5069.	4807.	4493.	4167.	3841.	3526.	3233.	2965.	2718.
2492.	2283.	2069.	1910.	1744.	1590.	1448.	1317.	1197.	1087.
988.	897.	815.	740.	672.	611.	555.	518.	497.	478.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5279.	4670.	2308.	946.	113525.
CMS	149.	132.	65.	27.	3215.
INCHES		2.49	4.92	5.04	5.04
MM		63.16	124.87	127.95	127.95
AC-FT		2316.	4578.	4691.	4691.
THOUS CU M		2856.	5647.	5786.	5786.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

17.	16.	15.	15.	14.	14.	13.	13.	12.	12.
11.	11.	11.	10.	10.	9.	9.	9.	9.	8.
8.	8.	8.	7.	7.	7.	7.	7.	7.	6.
6.	7.	7.	7.	7.	8.	8.	8.	8.	8.
8.	8.	8.	8.	8.	7.	7.	6.	6.	7.
8.	10.	14.	18.	24.	30.	38.	46.	54.	63.
73.	88.	110.	139.	177.	225.	282.	348.	420.	497.
577.	657.	742.	843.	970.	1132.	1339.	1599.	1921.	2355.
2922.	3585.	4303.	5049.	5782.	6454.	7012.	7421.	7673.	7763.
7692.	7455.	7070.	6608.	6128.	5648.	5185.	4754.	4360.	3998.
3664.	3357.	3073.	2809.	2565.	2339.	2130.	1937.	1760.	1599.
1452.	1319.	1198.	1089.	989.	898.	816.	762.	731.	702.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7763.	6867.	3394.	1391.	166948.
CMS	220.	194.	96.	39.	4727.
INCHES		3.66	7.23	7.41	7.41
MM		92.88	183.63	188.16	188.16
AC-FT		3405.	6733.	6899.	6899.

```
              THOUS CU M                    4200.     8305.     8509.               8509.

                         HYDROGRAPH AT STA      1 FOR PLAN 1, RTIO 9
      34.       32.       31.       30.       29.       27.       26.       25.       24.       24.
      23.       22.       21.       20.       20.       19.       18.       18.       17.       16.
      16.       15.       15.       15.       14.       14.       13.       13.       13.       13.
      13.       13.       13.       14.       14.       15.       16.       16.       17.       17.
      17.       17.       16.       16.       15.       14.       14.       13.       12.       13.
      16.       20.       27.       36.       48.       61.       76.       92.      109.      126.
     146.      176.      219.      278.      355.      450.      564.      695.      840.      994.
    1153.     1313.     1484.     1687.     1941.     2265.     2677.     3197.     3843.     4709.
    5845.     7169.     8606.    10097.    11564.    12909.    14025.    14843.    15345.    15526.
   15384.    14910.    14139.    13216.    12257.    11297.    10370.     9508.     8719.     7995.
    7329.     6714.     6145.     5618.     5130.     4677.     4260.     3874.     3520.     3198.
    2905.     2639.     2397.     2177.     1978.     1796.     1632.     1524.     1463.     1405.

                          PEAK    6-HOUR    24-HOUR    72-HOUR    TOTAL VOLUME
                CFS      15526.    13735.     6789.      2782.       333895.
                CMS        440.      389.      192.        79.         9455.
             INCHES                  7.31     14.46      14.82        14.82
                 MM                185.76    367.27     376.32       376.32
              AC-FT                 6811.    13465.     13797.        13797.
         THOUS CU M                 8401.    16609.     17019.        17019.


   **********          **********          **********          **********          **********

                                  COMBINE HYDROGRAPHS

         COMBINE 2 INFLOW HYDROGRAPHS
                    ISTAG    ICOMP    IECON    ITAPE    JPLT    JPRT   INAME   ISTAGE   IAUTO
                      1        2        0        0        0       0       1       0        0

                    SUM OF 2 HYDROGRAPHS AT         1   PLAN 1   RTIO 1
      21.       20.       19.       19.       18.       17.       16.       16.       15.       15.
      14.       14.       13.       13.       12.       12.       11.       11.       11.       10.
      10.       10.       10.        9.        9.        9.        9.        8.        8.        8.
       9.        9.        9.       10.       10.       11.       11.       12.       12.       12.
      11.       11.       10.       10.        9.        8.        8.        7.        7.        9.
      12.       17.       24.       33.       44.       56.       69.       81.       93.      104.
     118.      142.      180.      235.      308.      398.      502.      615.      731.      846.
     935.     1054.     1161.     1304.     1506.     1784.     2154.     2630.     3213.     3991.
    5003.     6146.     7329.     8484.     9515.    10307.    10799.    10959.    10793.    10347.
    9720.     8998.     8226.     7461.     6745.     6091.     5499.     4964.     4483.     4046.
    3649.     3287.     2959.     2651.     2375.     2125.     1916.     1740.     1580.     1436.
    1327.     1244.     1167.     1096.     1030.      968.      911.      866.      832.      799.

                          PEAK    6-HOUR    24-HOUR    72-HOUR    TOTAL VOLUME
                CFS      10959.     9387.     4333.      1787.       214402.
                CMS        310.      266.      123.        51.         6071.
             INCHES                  1.61      2.97       3.06         3.06
                 MM                 40.82     75.36      77.69        77.69
              AC-FT                 4655.     8594.      8860.         8860.
         THOUS CU M                 5742.    10601.     10928.        10928.
```

```
*DVF*
                                        STATION     1
                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
              0.    1000.    2000.    3000.    4000.    5000.    6000.    7000.    8000.    9000.   10000.   11000.      0.
  0.30   1I
  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
  9.00  18I
  9.30  19I
 10.00  20I
 10.30  21I
 11.00  22I
 11.30  23I
 12.00  24I
 12.30  25I
 13.00  26I
 13.30  27I
 14.00  28I
 14.30  29I
 15.00  30I
 15.30  31I
 16.00  32I
 16.30  33I
 17.00  34I
 17.30  35I
 18.00  36I
 18.30  37I
 19.00  38I
 19.30  39I
 20.00  40I
 20.30  41I
 21.00  42I
 21.30  43I
 22.00  44I
 22.30  45I
 23.00  46I
 23.30  47I
  0.00  48I
  0.30  49I
  1.00  50I
  1.30  51I
  2.00  52I
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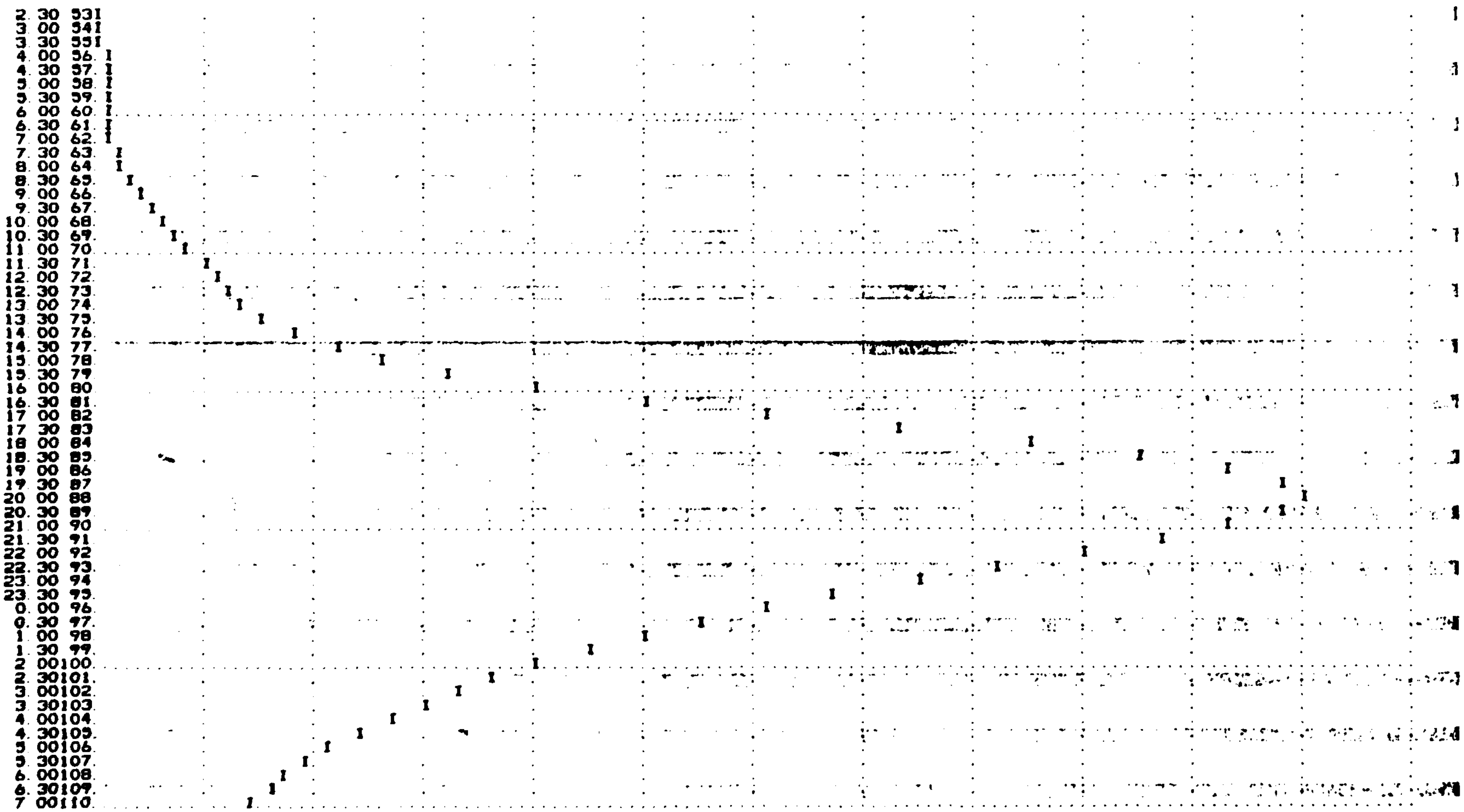
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7.00 62
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8.00 64
8.30 65
9.00 66
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10.30 69
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13.00 74
13.30 75
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19.30 87
20.00 88
20.30 89
21.00 90
21.30 91
22.00 92
22.30 93
23.00 94
23.30 95
0.00 96
0.30 97
1.00 98
1.30 99
2.00 100
2.30 101
3.00 102
3.30 103
4.00 104
4.30 105
5.00 106
5.30 107
6.00 108
6.30 109
7.00 110

```
 7.30111.       I
 8.00112.      I
 8.30113.      I
 9.00114.     I
 9.30115.    I
10.00116.    I
10.30117.   I
11.00118.   I
11.30119.  I
12.00120.  I
```

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

30.	29.	28.	27.	26.	25.	24.	23.	22.	21.
21.	20.	19.	18.	18.	17.	17.	16.	16.	15.
15.	14.	14.	13.	13.	13.	12.	12.	12.	12.
12.	13.	13.	14.	15.	16.	16.	17.	17.	17.
16.	16.	15.	14.	13.	12.	11.	11.	11.	12.
17.	24.	35.	48.	64.	81.	100.	118.	135.	150.
171.	205.	261.	341.	447.	577.	727.	891.	1061.	1227.
1384.	1529.	1684.	1891.	2183.	2586.	3124.	3813.	4659.	5787.
7254.	8912.	10627.	12302.	13796.	14945.	15658.	15890.	15630.	15004.
14094.	13047.	11928.	10818.	9781.	8833.	7973.	7198.	6500.	5867.
5292.	4766.	4284.	3845.	3444.	3081.	2779.	2523.	2291.	2082.
1924.	1804.	1693.	1589.	1493.	1404.	1321.	1256.	1206.	1159.

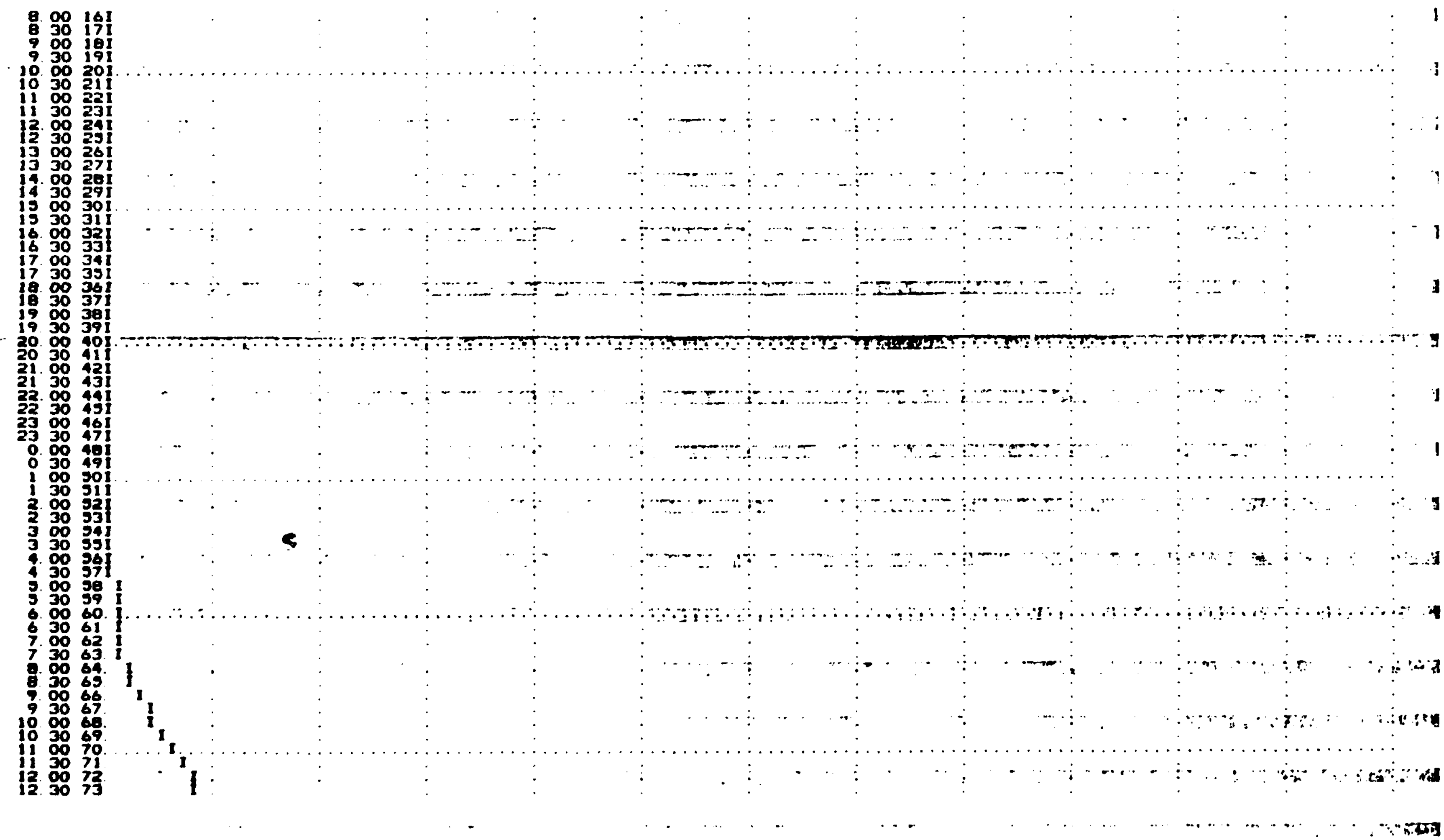
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15890.	13611.	6283.	2591.	310882.
CMS	450.	385.	178.	73.	8803.
INCHES		2.33	4.30	4.43	4.43
MM		59.18	109.27	112.65	112.65
AC-FT		6749.	12462.	12846.	12846.
THOUS CU M		8325.	15371.	15846.	15846.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0.   2000.   4000.   6000.   8000.  10000.  12000.  14000.  16000.   0.   0.   0.   0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
```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8 30 17
9 00 18
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10 30 21
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11 30 23
12.00 24
12 30 25
13 00 26
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14.00 28
14 30 29
15 00 30
15 30 31
16.00 32
16 30 33
17.00 34
17 30 35
18.00 36
18 30 37
19 00 38
19 30 39
20 00 40
20 30 41
21.00 42
21 30 43
22.00 44
22 30 45
23 00 46
23 30 47
0.00 48
0 30 49
1 00 50
1 30 51
2.00 52
2 30 53
3 00 54
3 30 55
4.00 56
4 30 57
5.00 58
5 30 59
6.00 60
6 30 61
7.00 62
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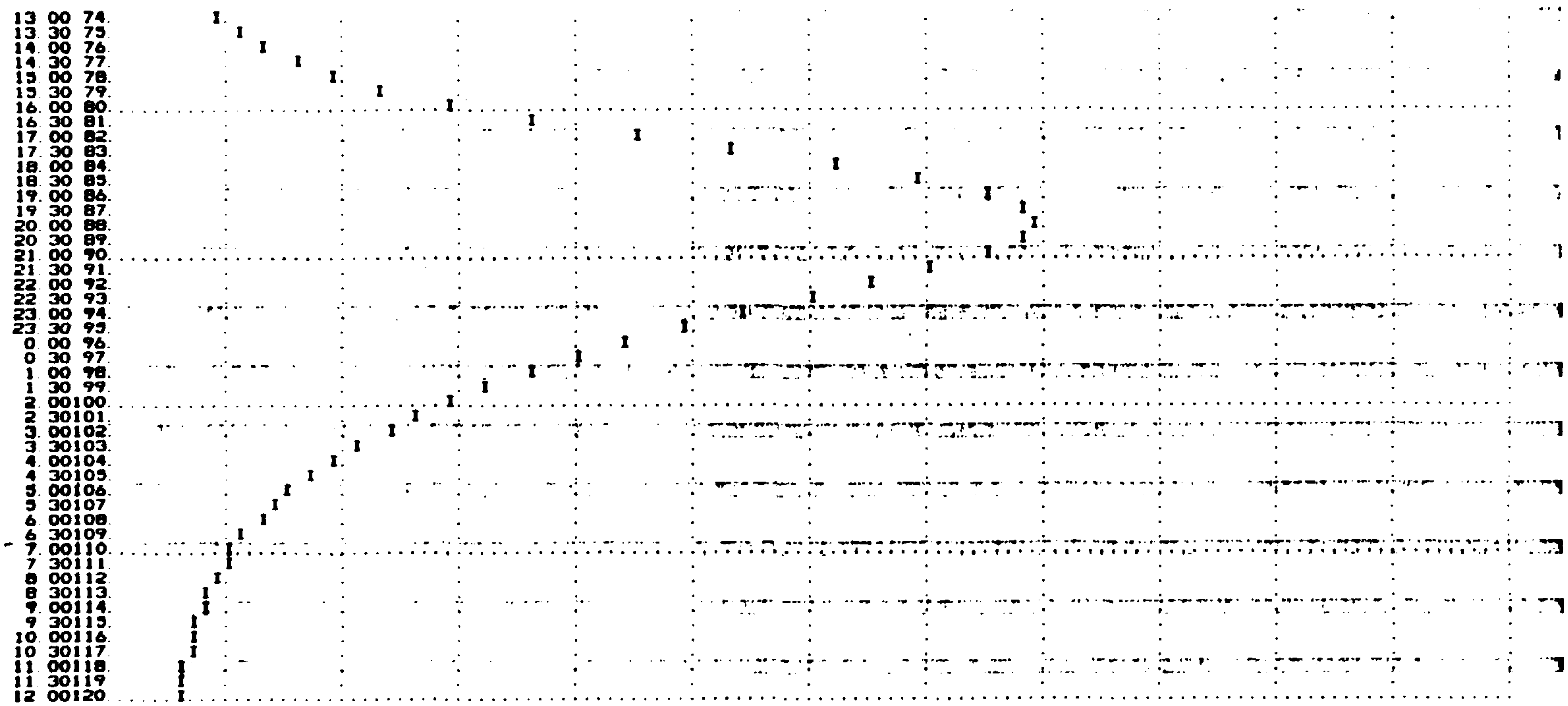

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

31.	30.	29.	28.	27.	26.	25.	24.	23.	22.
21.	20.	20.	19.	18.	18.	17.	17.	16.	16.
15.	15.	14.	14.	13.	13.	13.	13.	13.	13.
13.	13.	14.	15.	15.	16.	17.	17.	17.	17.

17.	16.	15.	15.	14.	13.	12.	11.	11.	13.
17.	25.	36.	50.	66.	84.	103.	122.	139.	156.
177.	212.	270.	353.	462.	597.	753.	922.	1097.	1270.
1432.	1581.	1742.	1937.	2259.	2675.	3232.	3945.	4819.	5986.
7504.	9219.	10993.	12726.	14272.	15461.	16198.	16438.	16189.	15521.
14580.	13497.	12339.	11192.	10118.	9137.	8248.	7446.	6724.	6070.
5474.	4930.	4432.	3977.	3563.	3187.	2874.	2610.	2370.	2154.
1991.	1866.	1751.	1644.	1545.	1453.	1367.	1300.	1248.	1198.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16438.	14081.	6499.	2680.	321602.
CMS	465.	399.	184.	76.	9107.
INCHES		2.41	4.45	4.59	4.59
MM		61.22	113.04	116.53	116.53
AC-FT		6982.	12891.	13289.	13289.
THOUS CU M		8612.	15901.	16392.	16392.

OVF

STATION 1

```
                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.   2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   0.   0.   0.
 0.30    1I
 1.00    2I
 1.30    3I
 2.00    4I
 2.30    5I
 3.00    6I
 3.30    7I
 4.00    8I
 4.30    9I
 5.00   10I
 5.30   11I
 6.00   12I
 6.30   13I
 7.00   14I
 7.30   15I
 8.00   16I
 8.30   17I
 9.00   18I
 9.30   19I
10.00   20I
10.30   21I
11.00   22I
11.30   23I
12.00   24I
12.30   25I
13.00   26I
13.30   27I
14.00   28I
14.30   29I
15.00   30I
15.30   31I
16.00   32I
16.30   33I
17.00   34I
17.30   35I
18.00   36I
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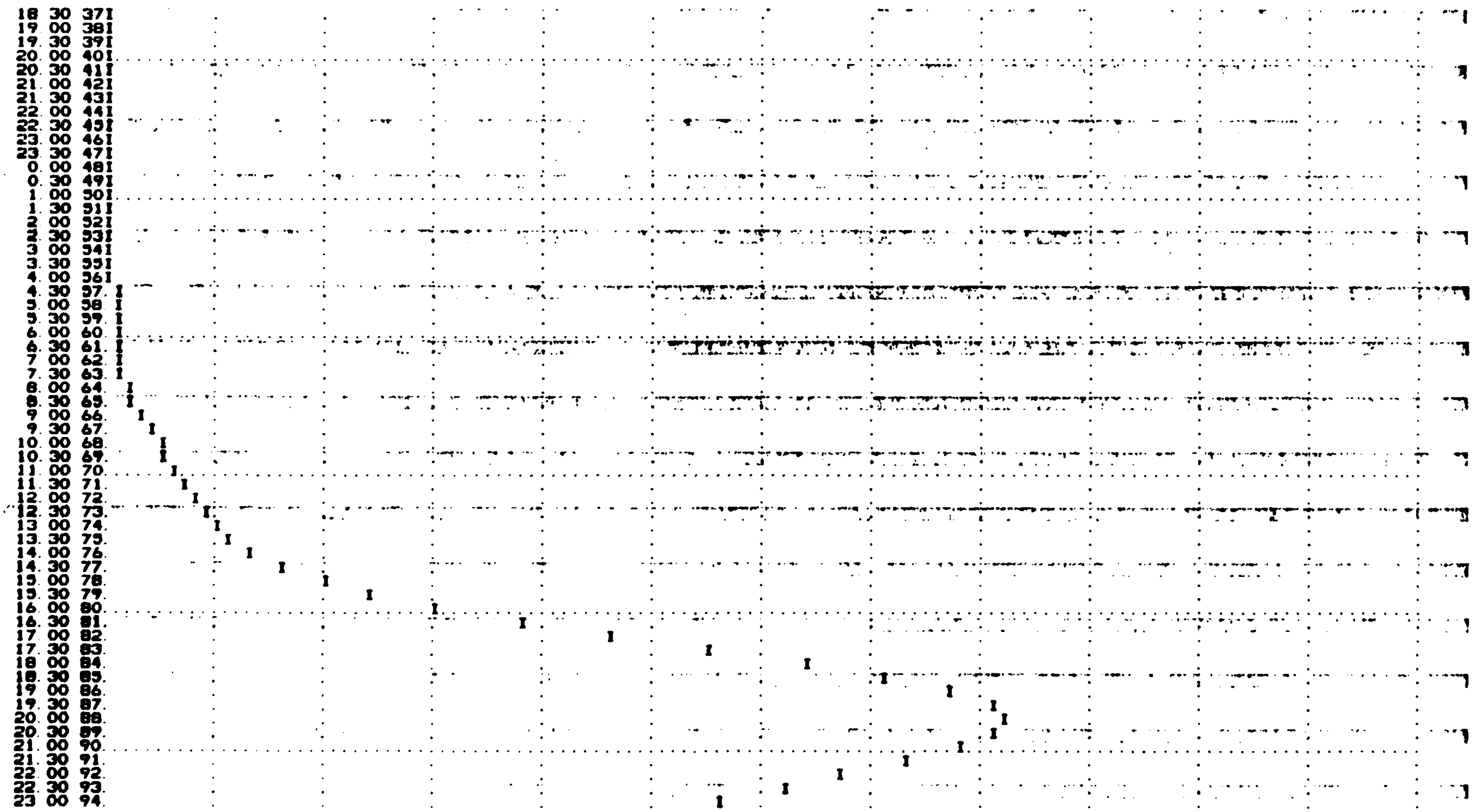
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22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
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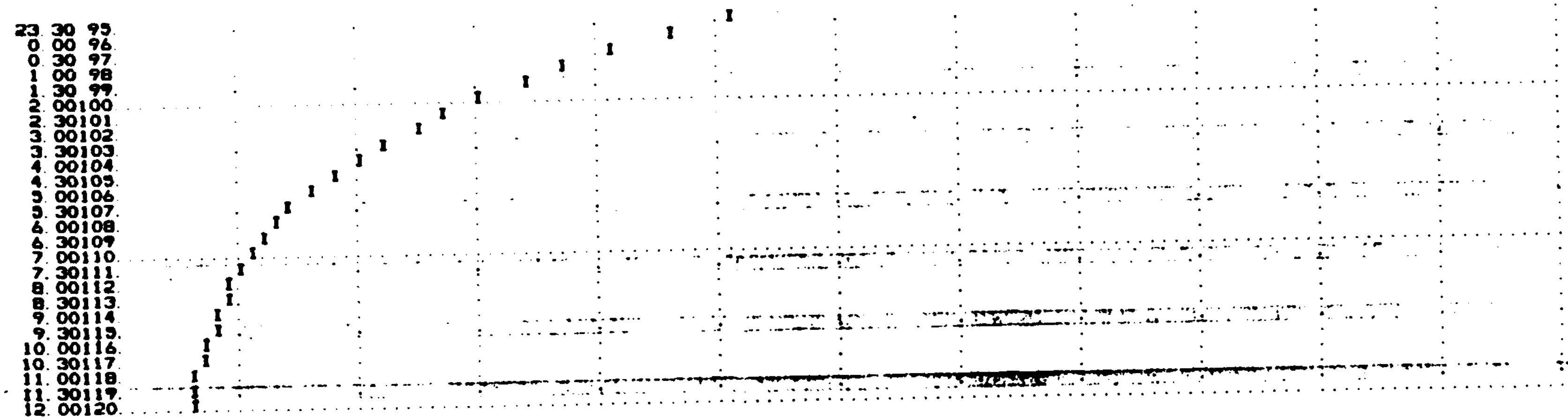
22.30 93
23.00 94



DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

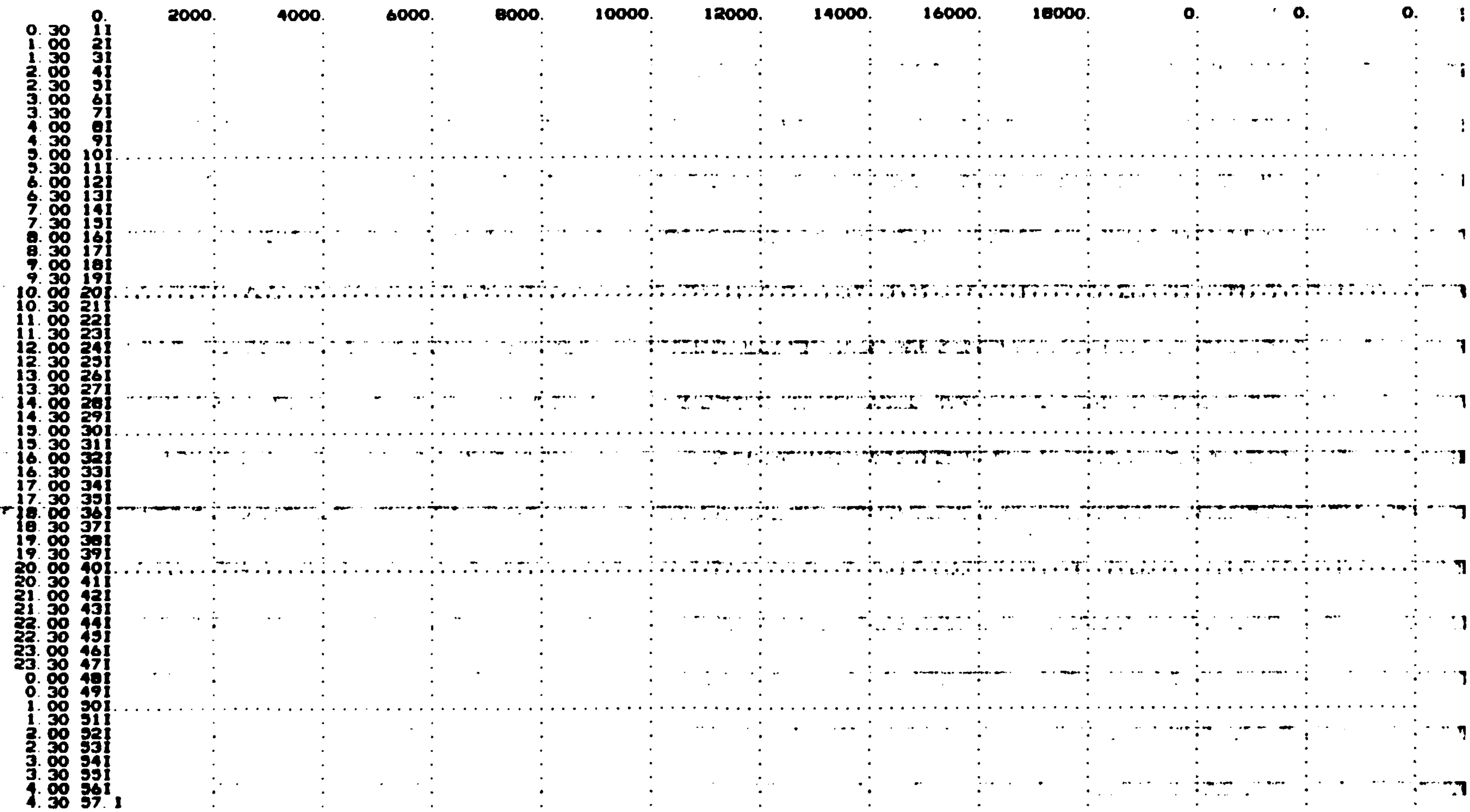
32.	31.	30.	29.	28.	27.	26.	25.	24.	23.
22.	21.	20.	20.	19.	18.	18.	17.	17.	16.
16.	15.	15.	14.	14.	14.	13.	13.	13.	13.
13.	14.	14.	15.	16.	17.	17.	18.	18.	18.
18.	17.	16.	15.	14.	13.	12.	11.	11.	13.
18.	26.	37.	51.	68.	87.	107.	126.	144.	161.
182.	220.	279.	364.	477.	617.	778.	953.	1134.	1312.
1480.	1634.	1800.	2022.	2334.	2764.	3339.	4076.	4980.	6186.
7754.	9526.	11359.	13150.	14748.	15976.	16738.	16986.	16729.	16038.
15066.	13947.	12750.	11565.	10459.	9442.	8523.	7695.	6948.	6272.
5657.	5094.	4580.	4110.	3681.	3294.	2970.	2697.	2449.	2226.
2057.	1929.	1809.	1699.	1596.	1501.	1413.	1343.	1290.	1238.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16986.	14550.	6716.	2769.	332323.
CMS	481.	412.	190.	78.	9410.
INCHES		2.49	4.60	4.74	4.74
MM		63.27	116.81	120.42	120.42
AC-FT		7215.	13321.	13732.	13732.
THOUS CU M		8899.	16431.	16939.	16939.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)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8000.
10000.
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18000.
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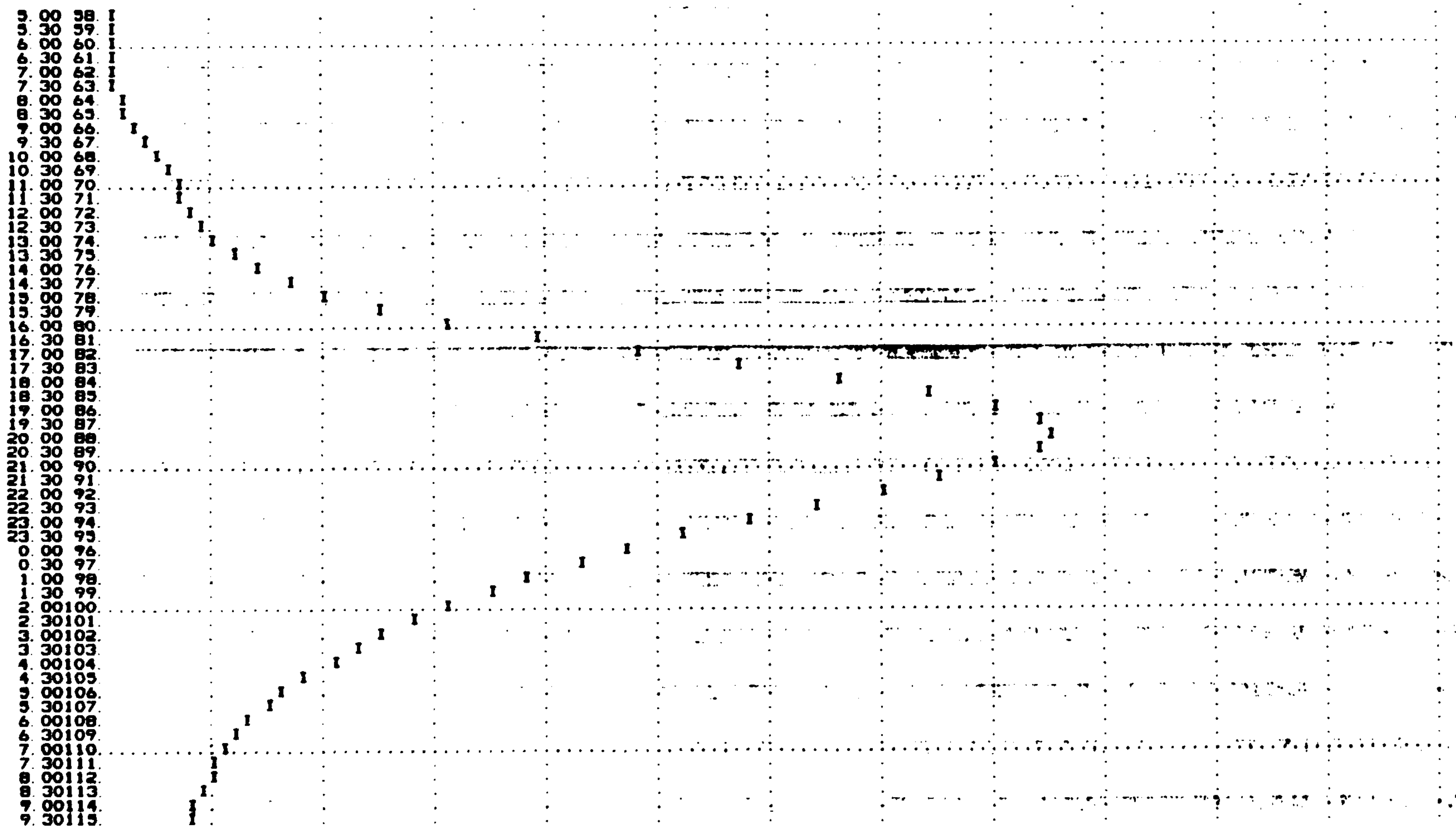
1.30 3I
2.00 4I
2.30 5I
3.00 6I
3.30 7I
4.00 8I
4.30 9I
5.00 10I
5.30 11I
6.00 12I
6.30 13I
7.00 14I
7.30 15I
8.00 16I
8.30 17I
9.00 18I
9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
0.00 48I
0.30 49I
1.00 50I
1.30 51I
2.00 52I
2.30 53I
3.00 54I
3.30 55I
4.00 56I
4.30 57. I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9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
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16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.

FLAHERTY GIAVARA ASSOCIATES, P.C.

```
10.00116.        I
10.30117.        I
11.00118.        I
11.30119.        I
12.00120.........I.........................................................
```

QVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

33.	32.	31.	30.	28.	27.	26.	25.	24.	24.
23.	22.	21.	20.	20.	19.	18.	18.	17.	17.
16.	16.	15.	15.	14.	14.	14.	14.	14.	14.
14.	14.	15.	16.	16.	17.	18.	18.	19.	19.
18.	17.	16.	16.	15.	14.	13.	12.	12.	14.
19.	27.	38.	53.	71.	90.	110.	130.	149.	166.
188.	227.	288.	376.	493.	637.	803.	984.	1170.	1354.
1528.	1687.	1858.	2087.	2409.	2854.	3447.	4208.	3141.	6386.
8004.	9833.	11726.	13575.	15224.	18491.	17278.	17534.	17269.	16556.
15552.	14397.	13162.	11938.	10792.	9746.	8798.	7943.	7172.	6474.
5839.	5259.	4728.	4242.	3800.	3400.	3066.	2784.	2528.	2298.
2123.	1991.	1868.	1754.	1648.	1550.	1458.	1386.	1331.	1278.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	17534.	15019.	6933.	2859.	343043.
CMS	496.	425.	196.	81.	9714.
INCHES		2.37	4.73	4.89	4.89
MM		65.31	120.58	124.30	124.30
AC-FT		7448.	13791.	14175.	14175.
THOUS CU M		9186.	16961.	17485.	17485.

STATION 1

OVF

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
        0.   2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   0.   0.   0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I.................................................................
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I.................................................................
```

10.30	21
11.00	22
11.30	23
12.00	24
12.30	25
13.00	26
13.30	27
14.00	28
14.30	29
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17.00	34
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20.30	41
21.00	42
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22.00	44
22.30	45
23.00	46
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2.00	52
2.30	53
3.00	54
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4.30	57
5.00	58
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8.30	65
9.00	66
9.30	67
10.00	68
10.30	69
11.00	70
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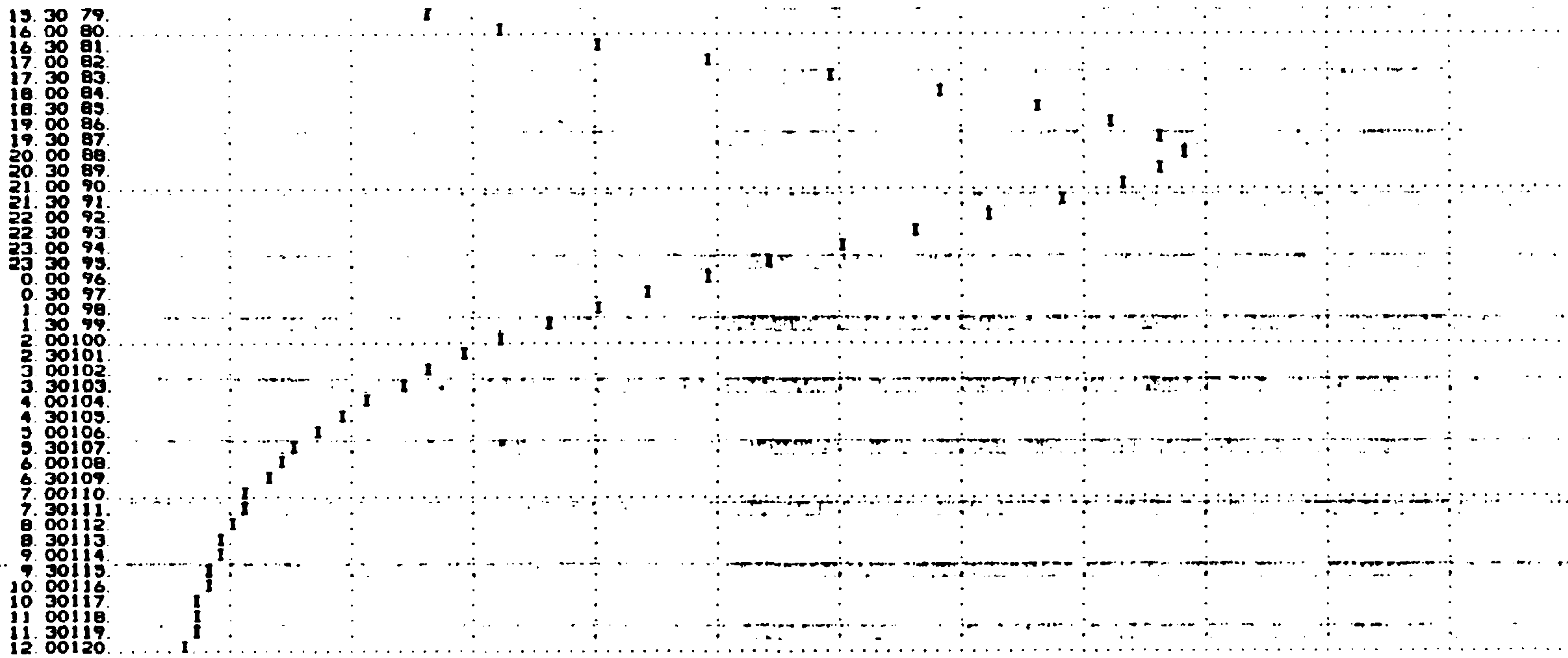
15.00	78



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

34.	33.	32.	31.	29.	28.	27.	26.	25.	24.
23.	23.	22.	21.	20.	19.	19.	18.	18.	17.
17.	16.	16.	15.	15.	14.	14.	14.	14.	14.
14.	15.	15.	16.	17.	18.	19.	19.	19.	19.
19.	18.	17.	16.	15.	14.	13.	12.	12.	14.
19.	28.	39.	55.	73.	93.	113.	134.	153.	171.
194.	234.	297.	388.	508.	657.	828.	1014.	1207.	1397.
1573.	1737.	1916.	2152.	2485.	2943.	3555.	4339.	5301.	6585.
8254.	10141.	12092.	13999.	15699.	17007.	17818.	18082.	17808.	17073.

16037.	14846.	13573.	12311.	11130.	10051.	9073.	8191.	7396.	6677.
6022.	5423.	4875.	4375.	3919.	3506.	3162.	2871.	2607.	2369.
2190.	2053.	1926.	1809.	1699.	1598.	1504.	1430.	1373.	1318.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	18082.	15489.	7149.	2948.	353763.
CMS	512.	439.	202.	83.	10017.
INCHES		2.65	4.90	5.05	5.05
MM		67.35	124.35	128.18	128.18
AC-FT		7680.	14181.	14618.	14618.
THOUS CU M		9474.	17491.	18031.	18031.

DVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.    2000.  4000.  6000.  8000.  10000.  12000.  14000.  16000.  18000.  20000.  0.    0.
 0 30   1I
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 1 30   3I
 2 00   4I
 2 30   5I
 3 00   6I
 3 30   7I
 4 00   8I
 4 30   9I
 5 00  10I
 5 30  11I
 6 00  12I
 6 30  13I
 7 00  14I
 7 30  15I
 8 00  16I
 8 30  17I
 9 00  18I
 9 30  19I
10 00  20I
10 30  21I
11 00  22I
11 30  23I
12 00  24I
12 30  25I
13 00  26I
13 30  27I
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18 30  37I
19 00  38I
19 30  39I
20 00  40I
20 30  41I
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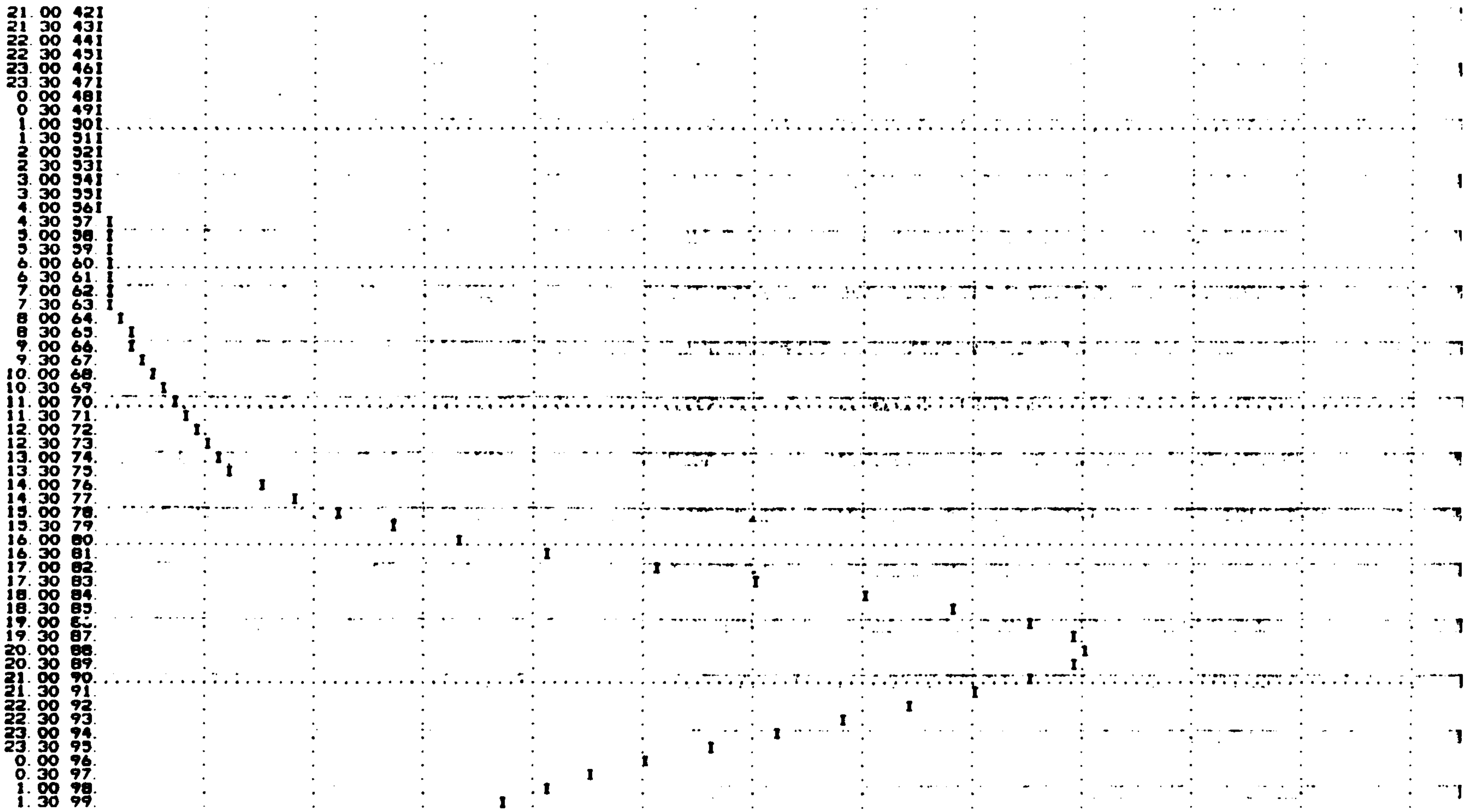
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4.30 57
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5.30 59
6.00 60
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23.30 95
0.00 96
0.30 97
1.00 98
1.30 99

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 2.00100.....................................I.........................................
 2.30101.                                 I
 3.00102.                              I
 3.30103.                           I
 4.00104.                         I
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 5.00106.                     I
 5.30107.                   I
 6.00108.                 I
 6.30109.                I
 7.00110...............I...................................................................
 7.30111.             I
 8.00112.            I
 8.30113.            I
 9.00114.           I
 9.30115.          I
10.00116.          I
10.30117.          I
11.00118.         I
11.30119.         I
12.00120.........I.........................................................................
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

35.	34.	33.	31.	30.	29.	28.	27.	26.	25.
24.	23.	22.	22.	21.	20.	19.	19.	18.	18.
17.	17.	16.	16.	15.	15.	15.	14.	14.	14.
15.	15.	16.	17.	17.	18.	19.	20.	20.	20.
19.	18.	18.	16.	15.	14.	13.	12.	12.	15.
20.	28.	41.	56.	75.	95.	117.	138.	158.	176.
200.	241.	306.	400.	524.	677.	853.	1045.	1244.	1439.
1623.	1792.	1974.	2217.	2560.	3032.	3663.	4471.	5462.	6785.
8504.	10448.	12459.	14423.	16175.	17522.	18358.	18630.	18348.	17591.
16523.	15296.	13984.	12684.	11467.	10355.	9348.	8439.	7621.	6879.
6204.	5988.	9023.	4507.	4038.	3612.	3258.	2958.	2686.	2441.
2256.	2115.	1985.	1863.	1751.	1646.	1549.	1473.	1414.	1358.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	18630.	15958.	7366.	3037.	364483.
CMS	528.	452.	209.	86.	10321.
INCHES		2.73	5.04	5.20	5.20
MM		69.39	128.11	132.07	132.07
AC-FT		7913.	14610.	15061.	15061.
THOUS CU M		9761.	18021.	18578.	18578.

OVF

STATION 1

```
                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.   2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   20000.   0.   0.
0.30  1I
1.00  2I
1.30  3I
2.00  4I
```

2	30	5I
3	00	6I
3	30	7I
4	00	8I
4	30	9I
5	00	10I
5	30	11I
6	00	12I
6	30	13I
7	00	14I
7	30	15I
8	00	16I
8	30	17I
9	00	18I
9	30	19I
10	00	20I
10	30	21I
11	00	22I
11	30	23I
12	00	24I
12	30	25I
13	00	26I
13	30	27I
14	00	28I
14	30	29I
15	00	30I
15	30	31I
16	00	32I
16	30	33I
17	00	34I
17	30	35I
18	00	36I
18	30	37I
19	00	38I
19	30	39I
20	00	40I
20	30	41I
21	00	42I
21	30	43I
22	00	44I
22	30	45I
23	00	46I
23	30	47I
0	00	48I
0	30	49I
1	00	50I
1	30	51I
2	00	52I
2	30	53I
3	00	54I
3	30	55I
4	00	56I
4	30	57 I
5	00	58 I
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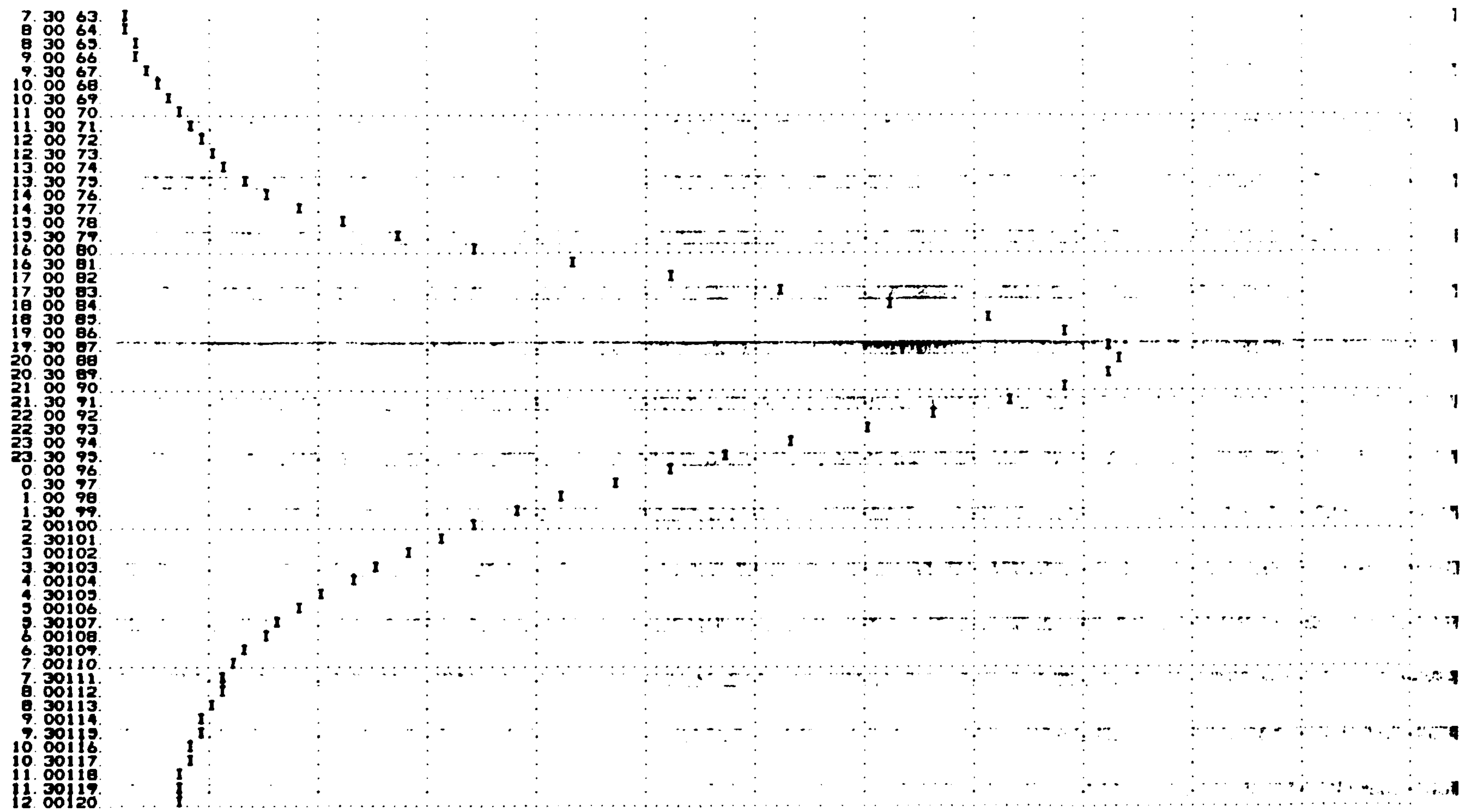
6	30	61. I
7	00	62. I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16.00 80.
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0.00 96.
0.30 97.
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1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

52.	50.	48.	46.	45.	43.	41.	40.	38.	37.
35.	34.	33.	32.	31.	30.	29.	28.	27.	26.
25.	25.	24.	23.	22.	22.	22.	21.	21.	21.
22.	22.	23.	24.	26.	27.	28.	29.	29.	29.
28.	27.	26.	24.	23.	21.	20.	18.	18.	21.
29.	42.	60.	83.	110.	140.	172.	203.	232.	259.
294.	354.	450.	588.	770.	995.	1254.	1537.	1829.	2116.
2387.	2636.	2903.	3261.	3764.	4459.	5386.	6575.	8032.	9977.
12506.	15365.	18322.	21210.	23787.	25768.	26997.	27396.	26982.	25868.
24299.	22495.	20565.	18693.	16863.	15229.	13747.	12411.	11207.	10116.
9124.	8217.	7387.	6628.	5938.	5312.	4791.	4350.	3950.	3590.
3318.	3111.	2919.	2740.	2575.	2421.	2278.	2166.	2080.	1997.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	27396.	23468.	10832.	4467.	536004.
CMS	776.	665.	307.	126.	15178.
INCHES		4.02	7.42	7.65	7.65
MM		102.04	188.40	194.22	194.22
AC-FT		11637.	21486.	22149.	22149.
THOUS CU M		14354.	26502.	27320.	27320.

OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.     4000.    8000.   12000.   16000.   20000.   24000.   28000.     0.     0.     0.     0.     0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
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10.30  21I
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12.00  24I
12.30  25I
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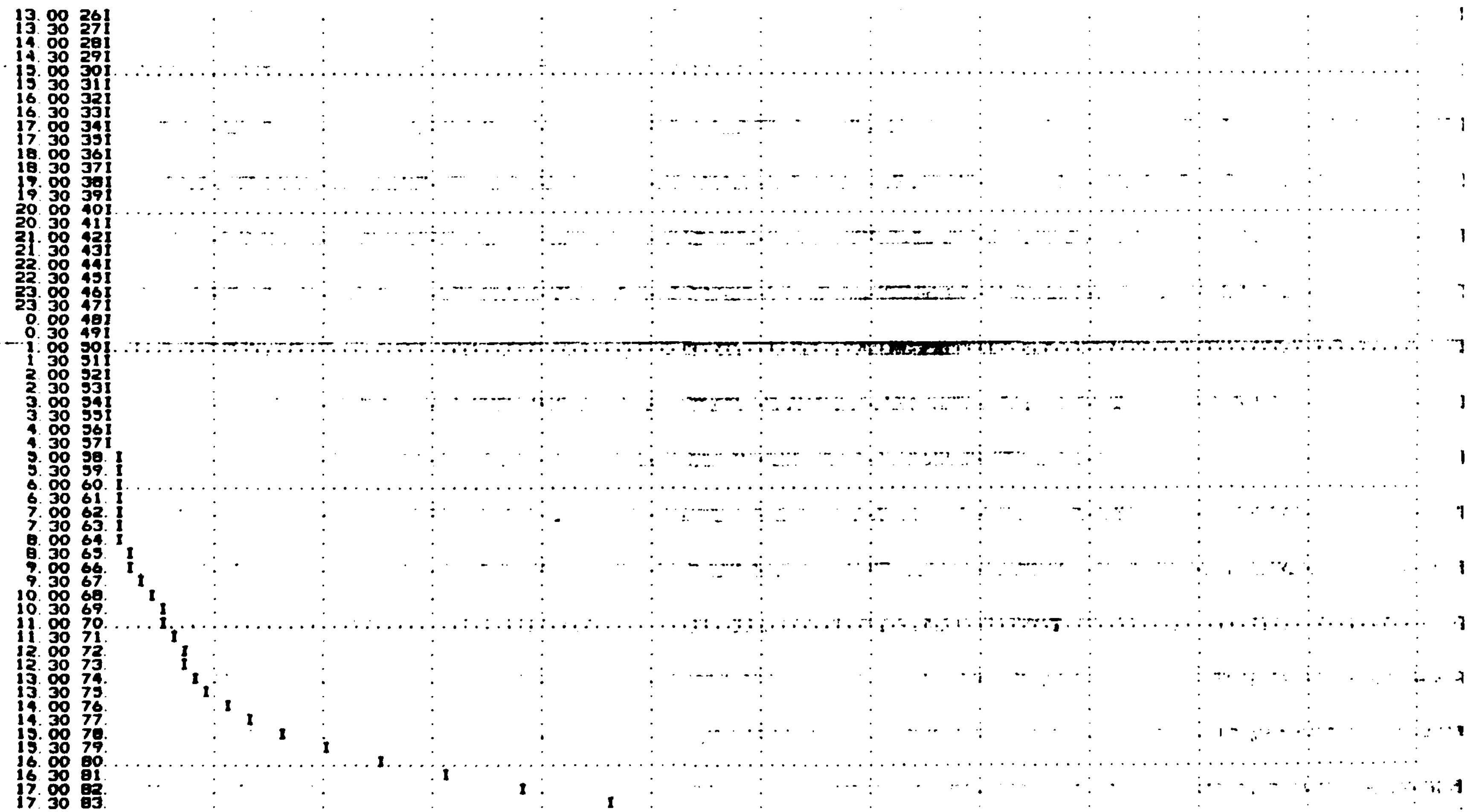
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19.30 39
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20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
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5.30 59.
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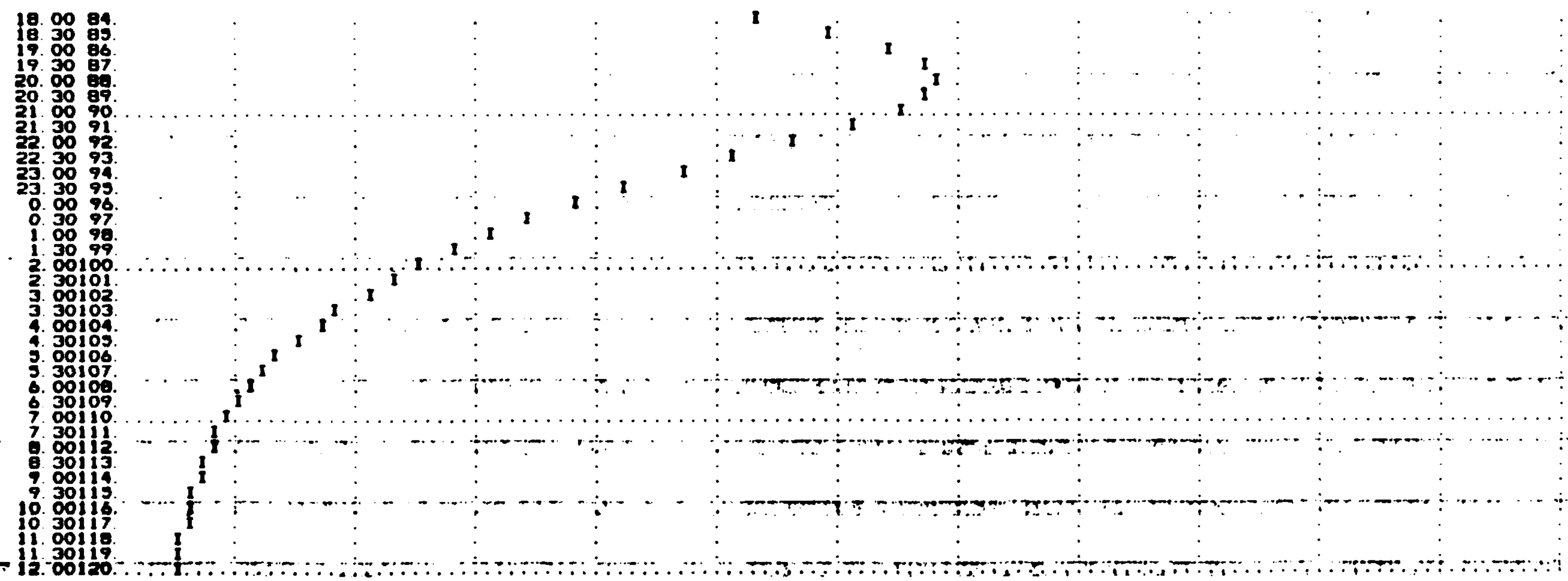

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

104.	100.	76.	73.	87.	86.	82.	79.	76.	74.
71.	68.	66.	63.	61.	59.	57.	55.	54.	52.
50.	49.	48.	46.	45.	44.	43.	42.	42.	42.
43.	44.	46.	49.	51.	54.	56.	38.	38.	38.
36.	54.	52.	49.	45.	42.	39.	37.	37.	43.
38.	83.	120.	166.	220.	281.	344.	406.	465.	519.
388.	708.	900.	1175.	1540.	1990.	2509.	3074.	3657.	4232.
4774.	5271.	5807.	6522.	7529.	8918.	10772.	13150.	16065.	19955.
25013.	30730.	36643.	42421.	47574.	51536.	53993.	54793.	53764.	51737.
48598.	44989.	41130.	37305.	33726.	30457.	27494.	24821.	22413.	20232.
18247.	16434.	14774.	13257.	11876.	10625.	9581.	8699.	7901.	7180.
6636.	6221.	5837.	5481.	5150.	4842.	4557.	4332.	4160.	3995.

PEAK 6-HOUR 24-HOUR 72-HOUR TOTAL VOLUME

CFS	54793.	46935.	21665.	8933.	1072008.
CMS	1552.	1329.	613.	253.	30356.
INCHES		8.03	14.83	15.29	15.29
MM		204.08	376.81	388.44	388.44
AC-FT		23274.	42971.	44298.	44298.
THOUS CU M		28708.	53004.	54641.	54641.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
           0.    5000.   10000.   15000.   20000.   25000.   30000.   35000.   40000.   45000.   50000.   55000.        0.
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 1.30  3I
 2.00  4I
 2.30  5I
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 3.30  7I
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 4.30  9I
 5.00 10I
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 6.30 13I
 7.00 14I
 7.30 15I
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10.30 21I
11.00 22I
11.30 23I
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14.30 29I
15.00 30I
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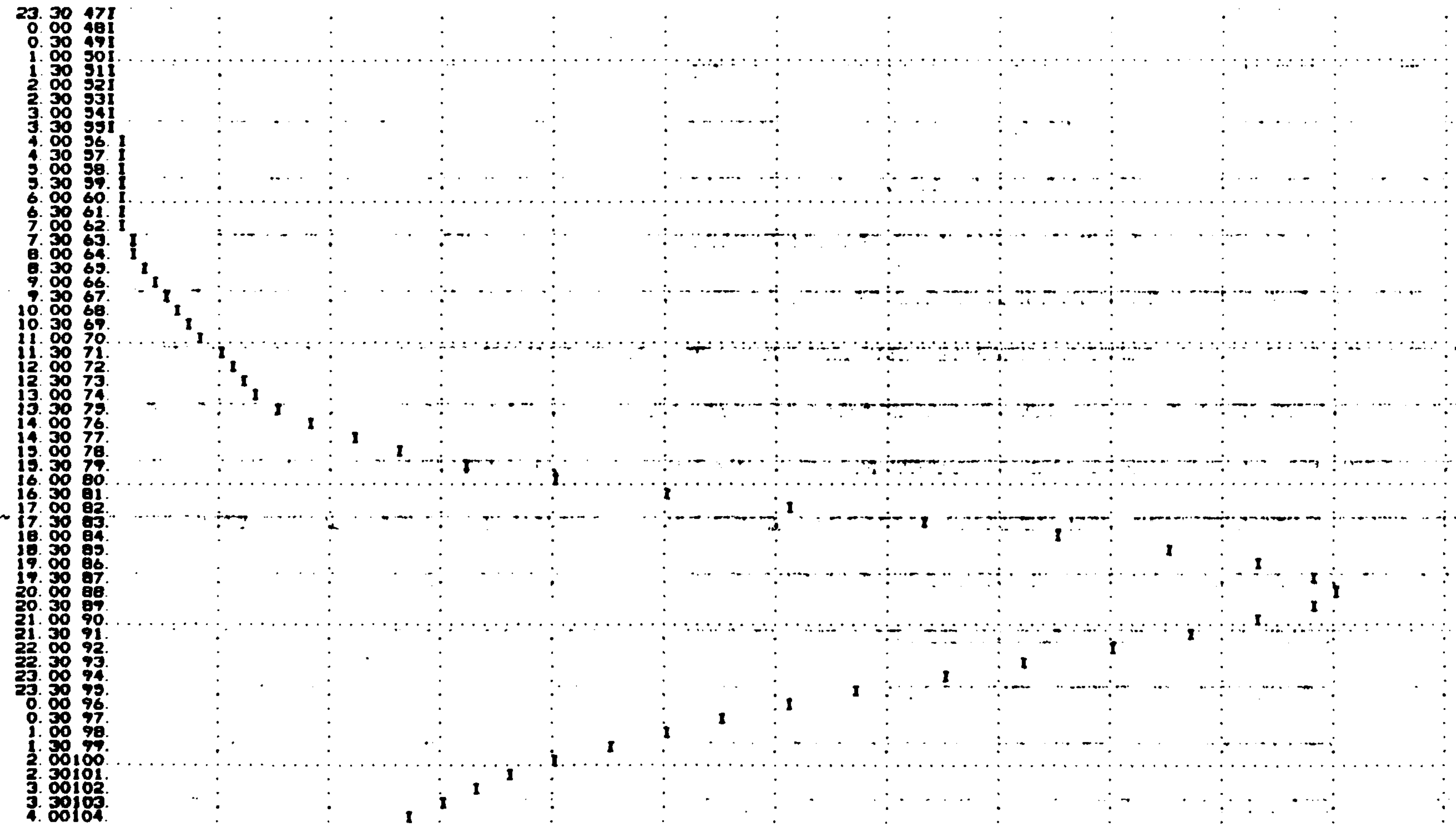
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3.00102.
3.30103.
4.00104.

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 8.30113.             I
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 9.30115.           I
10.00116.           I
10.30117.        I.
11.00118.        I
11.30119.       I
12.00120. . . . I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .

*OVN*

      **********      **********      **********      **********      **********
                          SUB-AREA RUNOFF COMPUTATION

          INFLOW HYDROGRAPH - SUBWATERSHED NO. 4
                    ISTAQ   ICOMP   IECON   ITAPE   JPLT    JPRT   INAME  ISTAGE   IAUTO
                      1       0       0       0       0       0      1       0       0

                                   HYDROGRAPH DATA
          IHYDG    IUHG    TAREA    SNAP    TRSDA   TRSPC   RATIO   ISNOW   ISAME   LOCAL
             1       1      4.77    0.00     4.77    0.00   0.000      0       0       0

                                    PRECIP DATA
                  SPFE     PMS      R6      R12     R24     R48     R72     R96
                  0.00    19.30   86.00   100.00  112.00  119.00   0.00    0.00
TRSPC COMPUTED BY THE PROGRAM IS 0.800

                                     LOSS DATA
          LROPT   STRKR   DLTKR   RTIOL   ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
            0     0.00    0.00    1.00    0.00    0.00    1.00    1.00    0.10    0.00    0.01

                               UNIT HYDROGRAPH DATA
                          TP=  3.87    CP=0.63    NTA=  0

                                  RECESSION DATA
                     STRTQ=   -2.00    QRCSN=   -0.10    RTIOR= 1.30
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 8.75 AND R= 7.04 INTERVALS

           UNIT HYDROGRAPH 42 END-OF-PERIOD ORDINATES, LAG=   3.87 HOURS, CP= 0.63  VOL= 1.00
             82.      82.     165.     258.     354.     435.     488.     510.     494.     443.
            384.     334.     289.     251.     218.     189.     164.     142.     123.     107.
             93.      80.      70.      61.      53.      46.      40.      34.      30.      26.
             22.      19.      17.      15.      13.      11.      10.       8.       7.       6.
              5.       5.
```

O END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	9.	1.02	6.30	61	0.18	0.13	0.05	56.
1.01	1.00	2	0.00	0.00	0.00	9.	1.02	7.00	62	0.18	0.13	0.05	69.
1.01	1.30	3	0.00	0.00	0.00	8.	1.02	7.30	63	0.18	0.13	0.05	91.
1.01	2.00	4	0.00	0.00	0.00	8.	1.02	8.00	64	0.18	0.13	0.05	124.
1.01	2.30	5	0.00	0.00	0.00	8.	1.02	8.30	65	0.18	0.13	0.05	168.
1.01	3.00	6	0.00	0.00	0.00	8.	1.02	9.00	66	0.18	0.13	0.05	221.
1.01	3.30	7	0.00	0.00	0.00	7.	1.02	9.30	67	0.18	0.13	0.05	280.
1.01	4.00	8	0.00	0.00	0.00	7.	1.02	10.00	68	0.18	0.13	0.05	342.
1.01	4.30	9	0.00	0.00	0.00	7.	1.02	10.30	69	0.18	0.13	0.05	401.
1.01	5.00	10	0.00	0.00	0.00	6.	1.02	11.00	70	0.18	0.13	0.05	455.
1.01	5.30	11	0.00	0.00	0.00	6.	1.02	11.30	71	0.18	0.13	0.05	501.
1.01	6.00	12	0.00	0.00	0.00	6.	1.02	12.00	72	0.18	0.13	0.05	541.
1.01	6.30	13	0.01	0.00	0.01	6.	1.02	12.30	73	0.66	0.61	0.05	587.
1.01	7.00	14	0.01	0.00	0.01	6.	1.02	13.00	74	0.66	0.61	0.05	657.
1.01	7.30	15	0.01	0.00	0.01	5.	1.02	13.30	75	0.80	0.75	0.05	766.
1.01	8.00	16	0.01	0.00	0.01	5.	1.02	14.00	76	0.80	0.75	0.05	924.
1.01	8.30	17	0.01	0.00	0.01	5.	1.02	14.30	77	1.00	0.95	0.05	1142.
1.01	9.00	18	0.01	0.00	0.01	5.	1.02	15.00	78	1.00	0.95	0.05	1420.
1.01	9.30	19	0.01	0.00	0.01	5.	1.02	15.30	79	1.21	1.16	0.05	1756.
1.01	10.00	20	0.01	0.00	0.01	5.	1.02	16.00	80	3.83	3.79	0.05	2201.
1.01	10.30	21	0.01	0.00	0.01	4.	1.02	16.30	81	0.93	0.88	0.05	2773.
1.01	11.00	22	0.01	0.00	0.01	4.	1.02	17.00	82	0.93	0.88	0.05	3401.
1.01	11.30	23	0.01	0.00	0.01	4.	1.02	17.30	83	0.73	0.68	0.05	4028.
1.01	12.00	24	0.01	0.00	0.01	4.	1.02	18.00	84	0.73	0.68	0.05	4614.
1.01	12.30	25	0.04	0.00	0.04	4.	1.02	18.30	85	0.09	0.04	0.05	5080.
1.01	13.00	26	0.04	0.00	0.04	4.	1.02	19.00	86	0.09	0.04	0.05	5361.
1.01	13.30	27	0.05	0.00	0.05	4.	1.02	19.30	87	0.09	0.04	0.05	5438.
1.01	14.00	28	0.05	0.00	0.05	4.	1.02	20.00	88	0.09	0.04	0.05	5292.
1.01	14.30	29	0.06	0.00	0.06	4.	1.02	20.30	89	0.09	0.04	0.05	4948.
1.01	15.00	30	0.06	0.00	0.06	4.	1.02	21.00	90	0.09	0.04	0.05	4508.
1.01	15.30	31	0.08	0.00	0.07	4.	1.02	21.30	91	0.09	0.04	0.05	4047.
1.01	16.00	32	0.24	0.00	0.24	4.	1.02	22.00	92	0.09	0.04	0.05	3588.
1.01	16.30	33	0.06	0.00	0.06	4.	1.02	22.30	93	0.09	0.04	0.05	3156.
1.01	17.00	34	0.06	0.00	0.06	5.	1.02	23.00	94	0.09	0.04	0.05	2773.
1.01	17.30	35	0.05	0.00	0.05	5.	1.02	23.30	95	0.09	0.04	0.05	2441.
1.01	18.00	36	0.05	0.00	0.05	5.	1.03	0.00	96	0.09	0.04	0.05	2152.
1.01	18.30	37	0.01	0.00	0.01	5.	1.03	0.30	97	0.00	0.00	0.00	1901.
1.01	19.00	38	0.01	0.00	0.01	6.	1.03	1.00	98	0.00	0.00	0.00	1681.
1.01	19.30	39	0.01	0.00	0.01	6.	1.03	1.30	99	0.00	0.00	0.00	1485.
1.01	20.00	40	0.01	0.00	0.01	5.	1.03	2.00	100	0.00	0.00	0.00	1311.
1.01	20.30	41	0.01	0.00	0.01	5.	1.03	2.30	101	0.00	0.00	0.00	1154.
1.01	21.00	42	0.01	0.00	0.01	5.	1.03	3.00	102	0.00	0.00	0.00	1012.
1.01	21.30	43	0.01	0.00	0.01	4.	1.03	3.30	103	0.00	0.00	0.00	884.
1.01	22.00	44	0.01	0.00	0.01	4.	1.03	4.00	104	0.00	0.00	0.00	769.
1.01	22.30	45	0.01	0.00	0.01	4.	1.03	4.30	105	0.00	0.00	0.00	667.
1.01	23.00	46	0.01	0.00	0.01	3.	1.03	5.00	106	0.00	0.00	0.00	578.
1.01	23.30	47	0.01	0.00	0.01	3.	1.03	5.30	107	0.00	0.00	0.00	532.
1.02	0.00	48	0.01	0.00	0.01	3.	1.03	6.00	108	0.00	0.00	0.00	511.
1.02	0.30	49	0.06	0.01	0.05	3.	1.03	6.30	109	0.00	0.00	0.00	490.
1.02	1.00	50	0.06	0.01	0.05	4.	1.03	7.00	110	0.00	0.00	0.00	471.
1.02	1.30	51	0.06	0.01	0.05	6.	1.03	7.30	111	0.00	0.00	0.00	452.
1.02	2.00	52	0.06	0.01	0.05	9.	1.03	8.00	112	0.00	0.00	0.00	434.
1.02	2.30	53	0.06	0.01	0.05	13.	1.03	8.30	113	0.00	0.00	0.00	417.
1.02	3.00	54	0.06	0.01	0.05	18.	1.03	9.00	114	0.00	0.00	0.00	400.
1.02	3.30	55	0.06	0.01	0.05	24.	1.03	9.30	115	0.00	0.00	0.00	385.
1.02	4.00	56	0.06	0.01	0.05	30.	1.03	10.00	116	0.00	0.00	0.00	369.

1.02	4.30	57	0.06	0.01	0.05	36.	1.03	10.30	117	0.00	0.00	0.00	355.
1.02	5.00	58	0.06	0.01	0.05	41.	1.03	11.00	118	0.00	0.00	0.00	341.
1.02	5.30	59	0.06	0.01	0.05	46.	1.03	11.30	119	0.00	0.00	0.00	327.
1.02	6.00	60	0.06	0.01	0.05	50.	1.03	12.00	120	0.00	0.00	0.00	314.

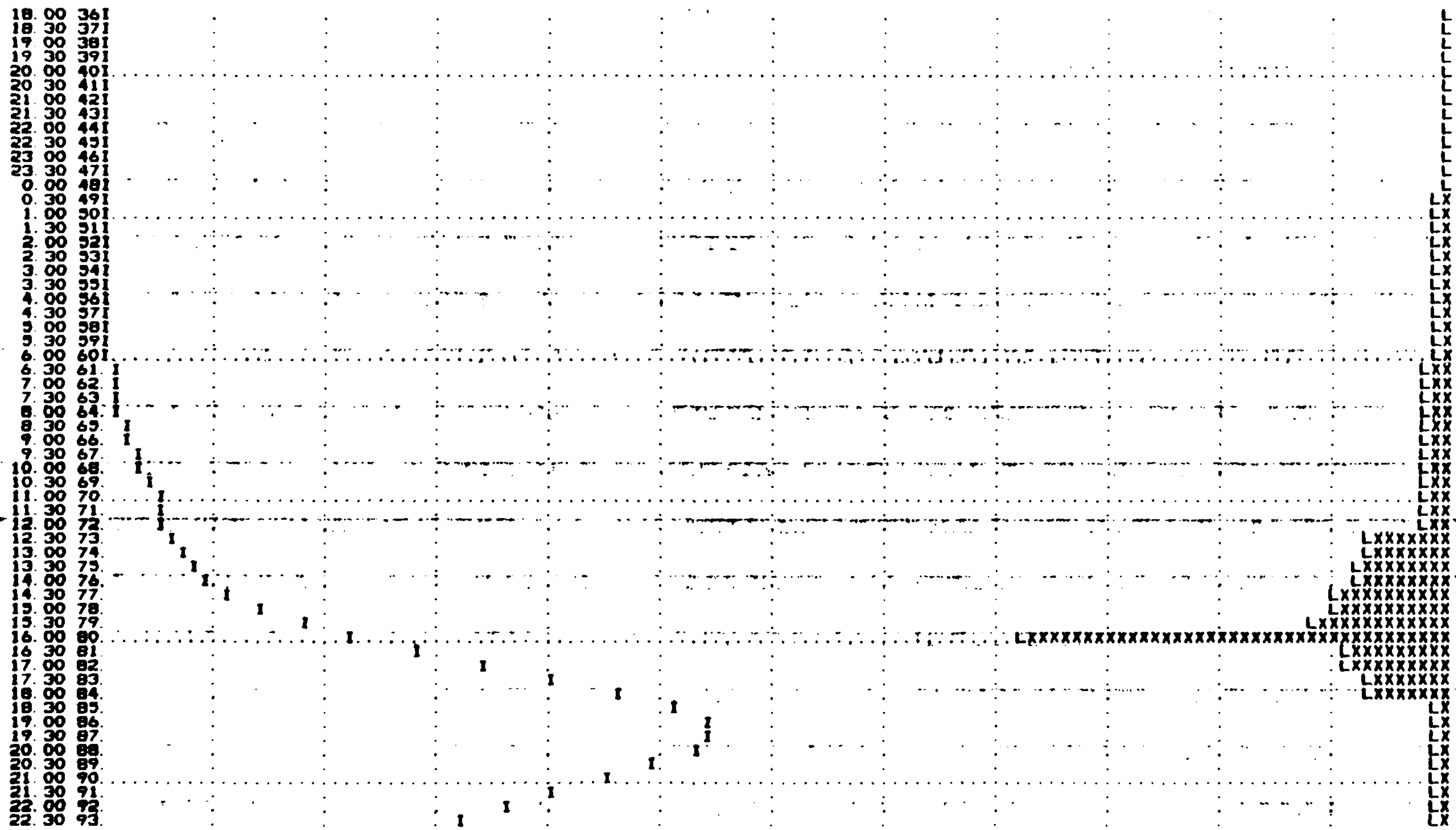
SUM 18.37 14.93 3.45 94073.
(467.)(379.)(88.)(2663.85)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5438.	4439.	1893.	783.	93912.
CMS	154.	126.	54.	22.	2659.
INCHES		8.66	14.76	15.26	15.26
MM		219.89	374.99	387.66	387.66
AC-FT		2201.	3754.	3881.	3881.
THOUS CU M		2715.	4630.	4787.	4787.

DVF

STATION 1

```
                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
       0.     1000.     2000.     3000.     4000.     5000.     6000.     0.     0.     0.     0.     0.     0.
                                                                                   PRECIP(L) AND EXCESS(X)
       0.       0.        0.        0.        0.        0.        0.        0.     4.     3.     2.     1.     0.
 0.30  1I                                                                                                  L
 1.00  2I                                                                                                  L
 1.30  3I                                                                                                  L
 2.00  4I                                                                                                  L
 2.30  5I                                                                                                  L
 3.00  6I                                                                                                  L
 3.30  7I                                                                                                  L
 4.00  8I                                                                                                  L
 4.30  9I                                                                                                  L
 5.00 10I                                                                                                  L
 5.30 11I                                                                                                  L
 6.00 12I                                                                                                  L
 6.30 13I                                                                                                  L
 7.00 14I                                                                                                  L
 7.30 15I                                                                                                  L
 8.00 16I                                                                                                  L
 8.30 17I                                                                                                  L
 9.00 18I                                                                                                  L
 9.30 19I                                                                                                  L
10.00 20I                                                                                                  L
10.30 21I                                                                                                  L
11.00 22I                                                                                                  L
11.30 23I                                                                                                  L
12.00 24I                                                                                                  L
12.30 25I                                                                                                  L
13.00 26I                                                                                                  L
13.30 27I                                                                                                  L
14.00 28I                                                                                                  L
14.30 29I                                                                                                 LX
15.00 30I                                                                                                 LX
15.30 31I                                                                                                 LX
16.00 32I                                                                                                LLX
16.30 33I                                                                                                 LX
17.00 34I                                                                                                 LX
17.30 35I                                                                                                  L
```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19.00 38
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20.00 40
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21.00 42
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23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
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14.30 77
15.00 78
15.30 79
16.00 80
16.30 81
17.00 82
17.30 83
18.00 84
18.30 85
19.00 86
19.30 87
20.00 88
20.30 89
21.00 90
21.30 91
22.00 92
22.30 93

```
23.00 94.                    I                                                                       LX
23.30 95.                 I                                                                          LX
 0.00 96.              I                                                                             LX
 0.30 97.            I                                                                               L
 1.00 98.          I                                                                                 L
 1.30 99.        I                                                                                   L
 2.00100. ......I.......................................................................................L
 2.30101.      I                                                                                     L
 3.00102.     I                                                                                      L
 3.30103.    I                                                                                       L
 4.00104.   I                                                                                        L
 4.30105.  I                                                                                         L
 5.00106. I                                                                                          L
 5.30107. I                                                                                          L
 6.00108. I                                                                                          L
 6.30109. I                                                                                          L
 7.00110. I.........................................................................................L
 7.30111. I                                                                                          L
 8.00112. I                                                                                          L
 8.30113. I                                                                                          L
 9.00114. I                                                                                          L
 9.30115. I                                                                                          L
10.00116. I                                                                                          L
10.30117. I                                                                                          L
11.00118. I                                                                                          L
11.30119. I                                                                                          L
12.00120. I.........................................................................................L
```

DVN

```
                           HYDROGRAPH AT STA     1 FOR PLAN 1, RTIO 1
     2.        2.        2.        2        2        2        1        1        1        1
     1.        1.        1.        1.       1        1        1        1        1        1.
     1.        1.        1.        1        1        1        1        1        1        1.
     1.        1.        1.        1.       1.       1        1        1.       1.       1.
     1.        1.        1.        1        1        1        1        1        1        1.
     1.        2.        3.        4.       5        6        7        8        9.      10.
    11.       14.       18.       25       34       44       56       68       80       91.
   100.      108.      117.      131.     153.     185.     228      284      351.     440.
   555.      680.      806.      923     1016     1072     1088     1058      990      902.
   809.      718.      631.      555.     488      430      380      336      297.     262.
   231.      202.      177       154      133      116      106      102       98.      94.
    90.       87.       83.       80.      77.      74       71       68.      65.      63.
```

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1088.	888	379	157	18782
CMS	31.	25.	11.	4.	532.
INCHES		1 73	2 95	3 05	3 05
MM		43 98	75.00	77 53	77 53
AC-FT		440	751	776	776
THOUS CU M		543.	926	957	957

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                           HYDROGRAPH AT STA     1 FOR PLAN 1, RTIO 2
     3.        3.        2.        2.       2        2        2        2.       2.       2.
     2         2.        2.        2        2        2        1        1        1        1.
```

1.	1.	1.	1.	1.	1.	1.	1.	1	1
1.	1.	1.	1.	1.	2.	2.	2	2	2
1.	1.	1.	1.	1.	1.	1.	1.	1	1.
2.	3.	4.	5.	7.	9.	10.	12.	13	14.
16.	20.	26.	36.	49.	64.	81.	99.	116.	132.
145.	157.	170.	190.	222.	268.	331.	412.	509.	638.
804.	986.	1168.	1338.	1473.	1555.	1577.	1535.	1435.	1307.
1174.	1040.	915.	804.	708.	624.	551.	487.	431	380.
335.	294.	256.	223.	194.	168.	154.	148.	142.	137.
131.	126.	121.	116.	112.	107.	103.	99.	95.	91.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1577.	1287.	549.	227.	27235.
CMS	45.	36.	16.	6.	771.
INCHES		2.51	4.28	4.43	4.43
MM		63.77	108.79	112.42	112.42
AC-FT		638.	1089.	1125.	1125.
THOUS CU M		787.	1343.	1388.	1388.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	2.	2.	2.	2.	2.	2.
2.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	5.	7.	9.	11.	12.	14.	15.
17.	21.	27.	37.	50.	66.	84.	102.	120.	136.
150.	162.	176.	197.	230.	277.	343.	426.	527.	660.
832.	1020.	1208.	1384.	1524.	1608.	1631.	1588.	1484.	1353.
1214.	1076.	947.	832.	732.	646.	570.	504.	446.	393.
346.	304.	265.	231.	200.	174.	160.	153.	147.	141.
136.	130.	125.	120.	115.	111.	106.	102.	98.	94.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1631.	1332.	568.	235.	28174.
CMS	46.	38.	16.	7.	798.
INCHES		2.60	4.43	4.58	4.58
MM		65.97	112.50	116.30	116.30
AC-FT		660.	1126.	1164.	1164.
THOUS CU M		815.	1389.	1436.	1436.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

3.	3.	3.	3.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	2.	2.	2.	2.	2.	2.
2.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	6.	7.	9.	11.	13.	14.	15.
17.	21.	28.	38.	52.	68.	87.	106.	124.	141.
155.	168.	182.	204.	237.	287.	354.	440.	544.	682.
860.	1054.	1249.	1430.	1575.	1662.	1686.	1640.	1534.	1398.
1254	1112.	978.	860.	757.	667.	589.	521.	460.	406.
358.	314.	274.	239.	207.	179.	165.	158.	152.	146.
140.	135.	129.	124.	119.	114.	110.	106.	101.	97.

PEAK 6-HOUR 24-HOUR 72-HOUR TOTAL VOLUME

CFS	1686.	1376.	387.	243.	29113.
CMS	48.	39.	17.	7.	824.
INCHES		2.68	4.58	4.73	4.73
MM		68.17	116.25	120.17	120.17
AC-FT		682.	1164.	1203.	1203.
THOUS CU M		842.	1435.	1484.	1484.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

3.	3.	3.	3.	3.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	2.	2.	2.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	6.	8.	10.	11.	13.	15.	16.
18.	22.	29.	40.	54.	71.	90.	109.	128.	145.
180.	173.	188.	210.	245.	296.	365.	454.	562.	704.
887.	1088.	1289.	1476.	1626.	1715.	1740.	1693.	1583.	1443.
1295.	1148.	1010.	887.	781.	689.	608.	538.	475.	419.
369.	324.	283.	246.	214.	185.	170.	163.	157.	151.
145.	139.	133.	128.	123.	118.	113.	109.	105.	100.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1740.	1421.	606.	250.	30052.
CMS	49.	40.	17.	7.	851.
INCHES		2.77	4.72	4.88	4.88
MM		70.36	120.00	124.05	124.05
AC-FT		704.	1201.	1242.	1242.
THOUS CU M		869.	1482.	1532.	1532.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

3.	3.	3.	3.	3.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	2.	2.	2.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	6.	8.	10.	12.	14.	15.	16.
18.	23.	30.	41.	55.	73.	92.	113.	132.	150.
165.	179.	194.	217.	253.	305.	377.	469.	579.	726.
915.	1122.	1329.	1523.	1676.	1769.	1795.	1746.	1633.	1488.
1335.	1184.	1042.	915.	805.	710.	627.	555.	490.	433.
381.	334.	292.	254.	220.	191.	176.	169.	162.	155.
149.	143.	138.	132.	127.	122.	117.	112.	108.	104.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1795.	1465.	625.	258.	30991.
CMS	51.	41.	18.	7.	878.
INCHES		2.86	4.87	5.04	5.04
MM		72.56	123.75	127.93	127.93
AC-FT		726.	1239.	1281.	1281.
THOUS CU M		896.	1528.	1580.	1580.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	1.	1.	1.	1.	1.	1.	1.	1.	1.

AD-A109 795 FLAHERTY-GIAVARA ASSOCIATES NEW HAVEN CT F/G 13/13
NATIONAL DAM SAFETY PROGRAM. OTSEGO LAKE DAM (INVENTORY NUMBER --ETC(U)
JUL 81 H C FLAHERTY DACW51-81-C-0006

UNCLASSIFIED NL

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5 OF 7

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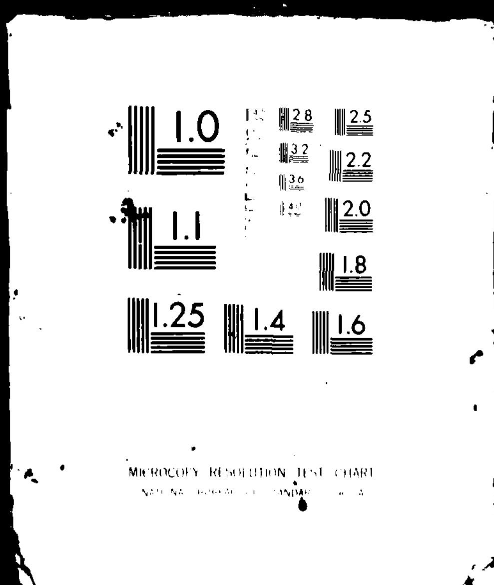
A109795



1.	1.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
2.	3.	4.	6.	8.	10.	12.	14.	16.	17.
19.	23.	31.	42.	57.	75.	95.	116.	136.	155.
170.	184.	200.	223.	260.	314.	388.	483.	597.	748.
943.	1156.	1370.	1569.	1727.	1823.	1849.	1799.	1682.	1533.
1376.	1220.	1073.	943.	830.	732.	646.	571.	505.	446.
392.	344.	301.	262.	227.	197.	181.	174.	167.	160.
154.	148.	142.	136.	131.	126.	121.	116.	111.	107.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1849.	1509.	643.	266.	31930.
CMS	52.	43.	18.	8.	904.
INCHES		2.94	5.02	5.19	5.19
MM		74.76	127.50	131.80	131.80
AC-FT		748.	1276.	1319.	1319.
THOUS CU M		923.	1574.	1627.	1627.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

5.	4.	4.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	2.	2.	2.
2.	2.	2.	2.	2.	2.	3.	2.	2.	2.
2.	2.	2.	2.	3.	3.	3.	3.	3.	3.
3.	2.	2.	2.	2.	2.	2.	1.	1.	2.
3.	4.	6.	9.	12.	15.	18.	21.	23.	25.
28.	34.	45.	62.	84.	110.	140.	171.	201.	227.
230.	271.	293.	328.	383.	462.	571.	710.	878.	1100.
1387.	1700.	2014.	2307.	2540.	2680.	2717.	2648.	2474.	2254.
2023.	1794.	1578.	1387.	1220.	1076.	951.	840.	743.	655.
577.	506.	442.	389.	334.	289.	266.	255.	249.	239.
226.	217.	209.	200.	192.	185.	177.	170.	163.	157.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2719.	2220.	946.	391.	46956.
CMS	77.	63.	27.	11.	1330.
INCHES		4.33	7.38	7.63	7.63
MM		109.94	187.49	193.83	193.83
AC-FT		1101.	1877.	1940.	1940.
THOUS CU M		1358.	2315.	2393.	2393.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

9.	9.	8.	8.	8.	8.	7.	7.	7.	6.
6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	5.	5.	5.	5.	6.	6.	5.
5.	5.	4.	4.	4.	3.	3.	3.	3.	4.
6.	9.	13.	18.	24.	30.	36.	41.	46.	50.
56.	69.	91.	124.	168.	221.	280.	342.	401.	455.
501.	541.	587.	657.	766.	924.	1142.	1420.	1756.	2201.
2773.	3401.	4028.	4614.	5080.	5361.	5438.	5292.	4948.	4508.
4047.	3988.	3156.	2773.	2441.	2152.	1901.	1681.	1485.	1311.
1154.	1012.	884.	769.	667.	578.	532.	511.	490.	471.
452.	434.	417.	400.	385.	369.	355.	341.	327.	314.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	5438.	4439.	1893.	783.	93912.

CMS	154.	126.	54.	22.		2659.
INCHES		8.66	14.76	15.26		15.26
MM		219.89	374.99	387.66		387.66
AC-FT		2201.	3734.	3881.		3881.
THOUS CU M		2715.	4630.	4787.		4787.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

23.	22.	21.	20.	19.	19.	18.	17.	17.	16.
15.	15.	14.	14.	13.	13.	12.	12.	12.	11.
11.	11.	10.	10.	10.	10.	9.	9.	9.	9.
9.	10.	10.	11.	11.	12.	12.	13.	13.	13.
12.	12.	11.	11.	10.	9.	9.	8.	8.	9.
13.	18.	26.	37.	49.	62.	78.	87.	102.	114.
129.	155.	198.	260.	342.	442.	558.	683.	812.	937.
1055.	1162.	1279.	1436.	1659.	1968.	2383.	2914.	3564.	4431.
5557.	6826.	8134.	9407.	10531.	11379.	11886.	12017.	11782.	11249.
10529.	9715.	8857.	8016.	7233.	6522.	5879.	5300.	4780.	4309.
3880.	3489.	3132.	2805.	2509.	2241.	2023.	1842.	1678.	1530.
1418.	1331.	1251.	1176.	1107.	1042.	982.	935.	897.	862.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12017.	10254.	4711.	1943.	233184.
CMS	340.	290.	133.	55.	6603.
INCHES		1.61	2.97	3.06	3.06
MM		40.99	75.33	77.68	77.68
AC-FT		5085.	9344.	9636.	9636.
THOUS CU M		6272.	11526.	11885.	11885.

DVF

STATION I

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0.   2000.   4000.   6000.   8000.   10000.   12000.   0.   0.   0.   0.   0.   0.
0 30     1I
1 00     2I
1 30     3I
2 00     4I
2 30     5I
3 00     6I
3 30     7I
4 00     8I
4 30     9I
5 00    10I
5 30    11I
6 00    12I
6 30    13I
```

```
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
 0.00 48I
 0.30 49I
 1.00 50I
 1.30 51I
 2.00 52I
 2.30 53I
 3.00 54I
 3.30 55I
 4.00 56I
 4.30 57I
 5.00 58I
 5.30 59. I
 6.00 60. I
 6.30 61. I
 7.00 62. I
 7.30 63. I
 8.00 64. I
 8.30 65.  I
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10.00 68.   I
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11.30 71.     I
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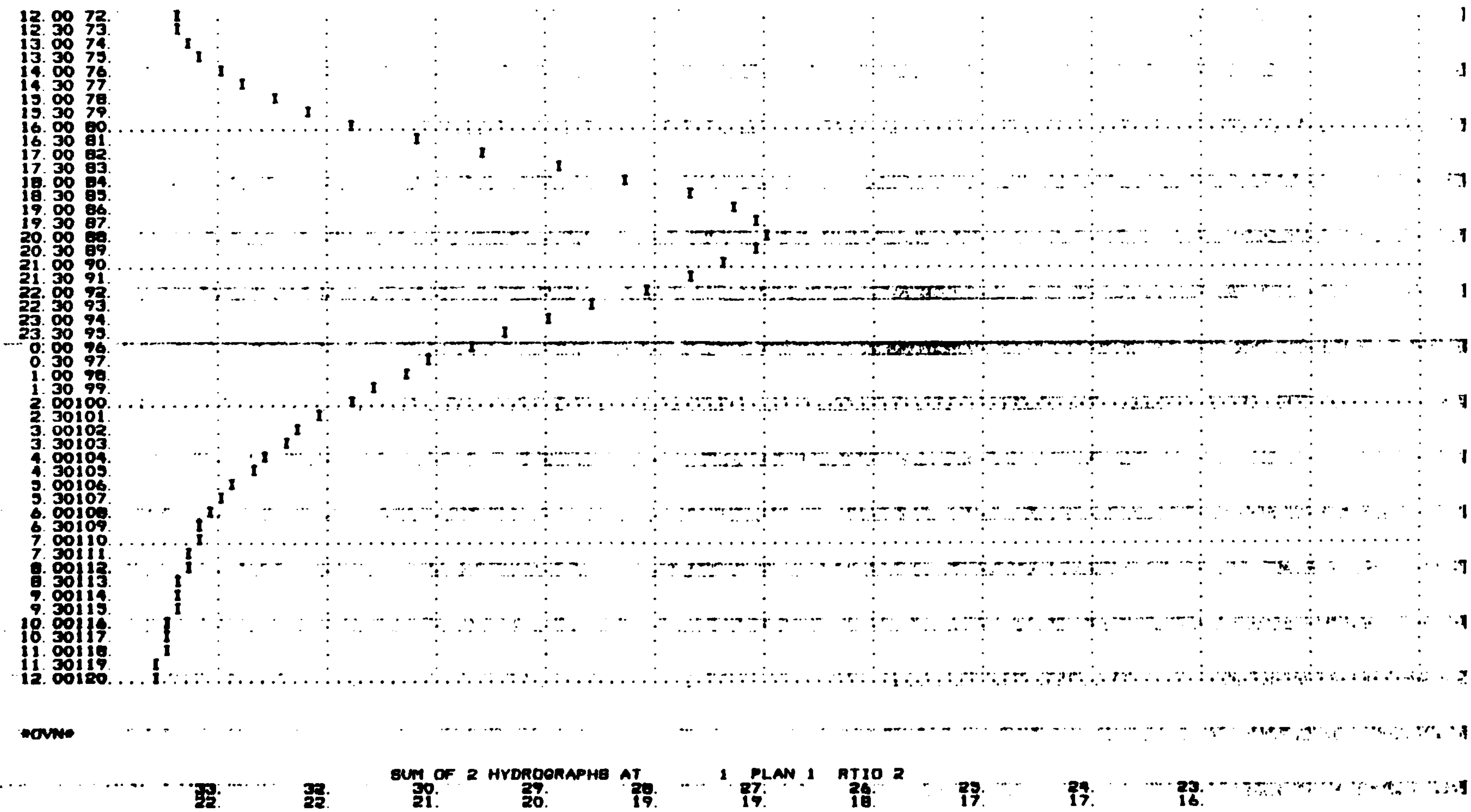
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16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
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6.30109.
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7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.
#OVN#
SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2
33. 32. 30. 29. 28. 27. 26. 25. 24. 23.
22. 22. 21. 20. 19. 19. 18. 17. 17. 16.

16.	15.	15.	15.	14.	14.	14.	13.	13.	13.
14.	14.	15.	15.	16.	17.	18.	18.	18.	18.
18.	17.	16.	15.	14.	13.	12.	11.	11.	14.
18.	27.	38.	53.	71.	90.	110.	130.	148.	165.
187.	225.	287.	377.	495.	641.	809.	990.	1177.	1359.
1530.	1686.	1854.	2082.	2405.	2854.	3495.	4225.	5168.	6425.
8058.	9898.	11795.	13640.	15270.	16500.	17235.	17425.	17085.	16311.
15267.	14087.	12843.	11623.	10488.	9457.	8524.	7686.	6931.	6248.
5626.	5059.	4541.	4068.	3638.	3249.	2933.	2671.	2433.	2219.
2056.	1930.	1814.	1706.	1605.	1511.	1424.	1355.	1301.	1250.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	17425.	14869.	6831.	2818.	338117.
CMS	493.	421.	193.	80.	9574.
INCHES		2.34	4.30	4.43	4.43
MM		59.44	109.22	112.63	112.63
AC-FT		7373.	13549.	13972.	13972.
THOUS CU M		9094.	16713.	17234.	17234.

OVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.   2000.   4000.   6000.   8000.   10000.  12000.  14000.  16000.  18000.   0.   0.   0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  32I
16.30  33I
17.00  34I
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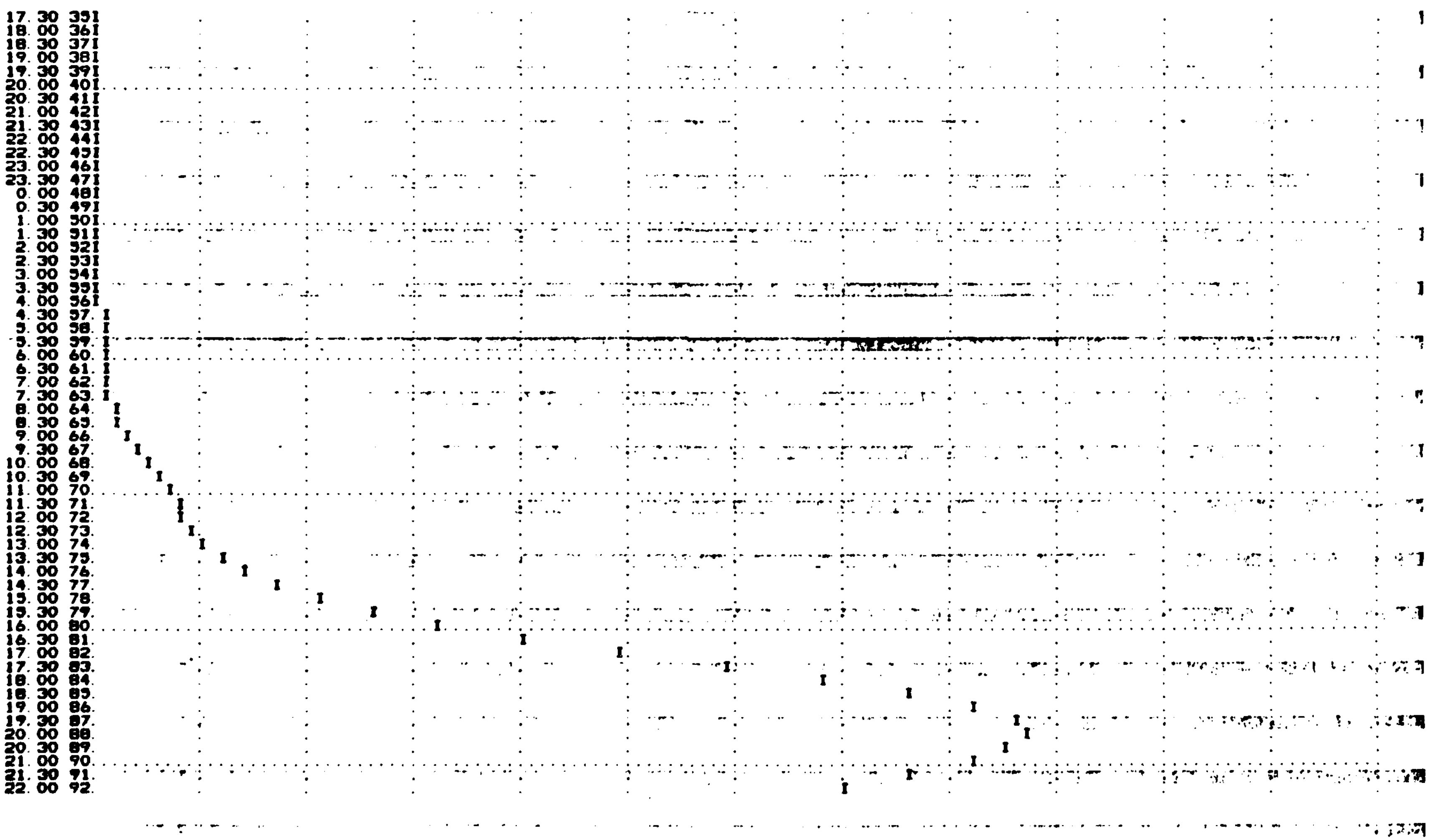
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21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
6.30 61
7.00 62
7.30 63
8.00 64
8.30 65
9.00 66
9.30 67
10.00 68
10.30 69
11.00 70
11.30 71
12.00 72
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13.00 74
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14.30 77
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16.00 80
16.30 81
17.00 82
17.30 83
18.00 84
18.30 85
19.00 86
19.30 87
20.00 88
20.30 89
21.00 90
21.30 91
22.00 92

C-394

```
22.30  93.
23.00  94.
23.30  95.
 0.00  96.
 0.30  97.
 1.00  98.
 1.30  99.
 2.00 100.
 2.30 101.
 3.00 102.
 3.30 103.
 4.00 104.
 4.30 105.
 5.00 106.
 5.30 107.
 6.00 108.
 6.30 109.
 7.00 110.
 7.30 111.
 8.00 112.
 8.30 113.
 9.00 114.
 9.30 115.
10.00 116.
10.30 117.
11.00 118.
11.30 119.
12.00 120.
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

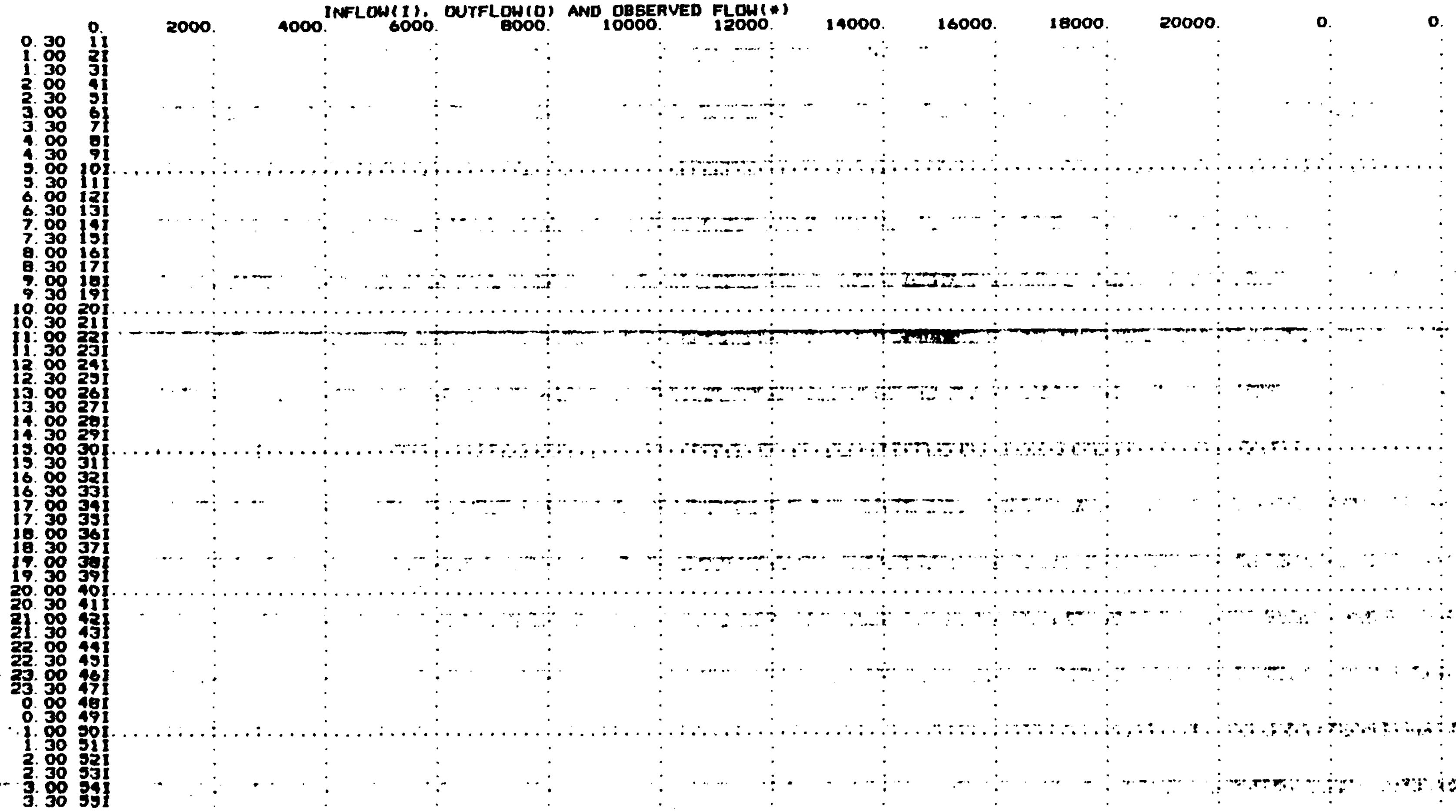
34.	33.	31.	30.	29.	28.	27.	26.	25.	24.
23.	22.	21.	21.	20.	19.	19.	18.	17.	17.
16.	16.	16.	15.	15.	14.	14.	14.	14.	14.
14.	15.	15.	16.	17.	18.	18.	19.	19.	19.
18.	18.	17.	16.	15.	14.	13.	12.	12.	14.
19.	28.	40.	55.	73.	93.	114.	134.	153.	171.
193.	233.	297.	390.	512.	663.	837.	1025.	1218.	1406.
1582.	1744.	1918.	2154.	2488.	2953.	3574.	4371.	5346.	6647.
8336.	10239.	12201.	14110.	15796.	17069.	17830.	18025.	17674.	16874.
15794.	14573.	13286.	12023.	10850.	9783.	8818.	7951.	7170.	6463.
5820.	5234.	4697.	4208.	3763.	3361.	3034.	2763.	2517.	2295.
2126.	1997.	1876.	1764.	1660.	1564.	1473.	1402.	1346.	1293.

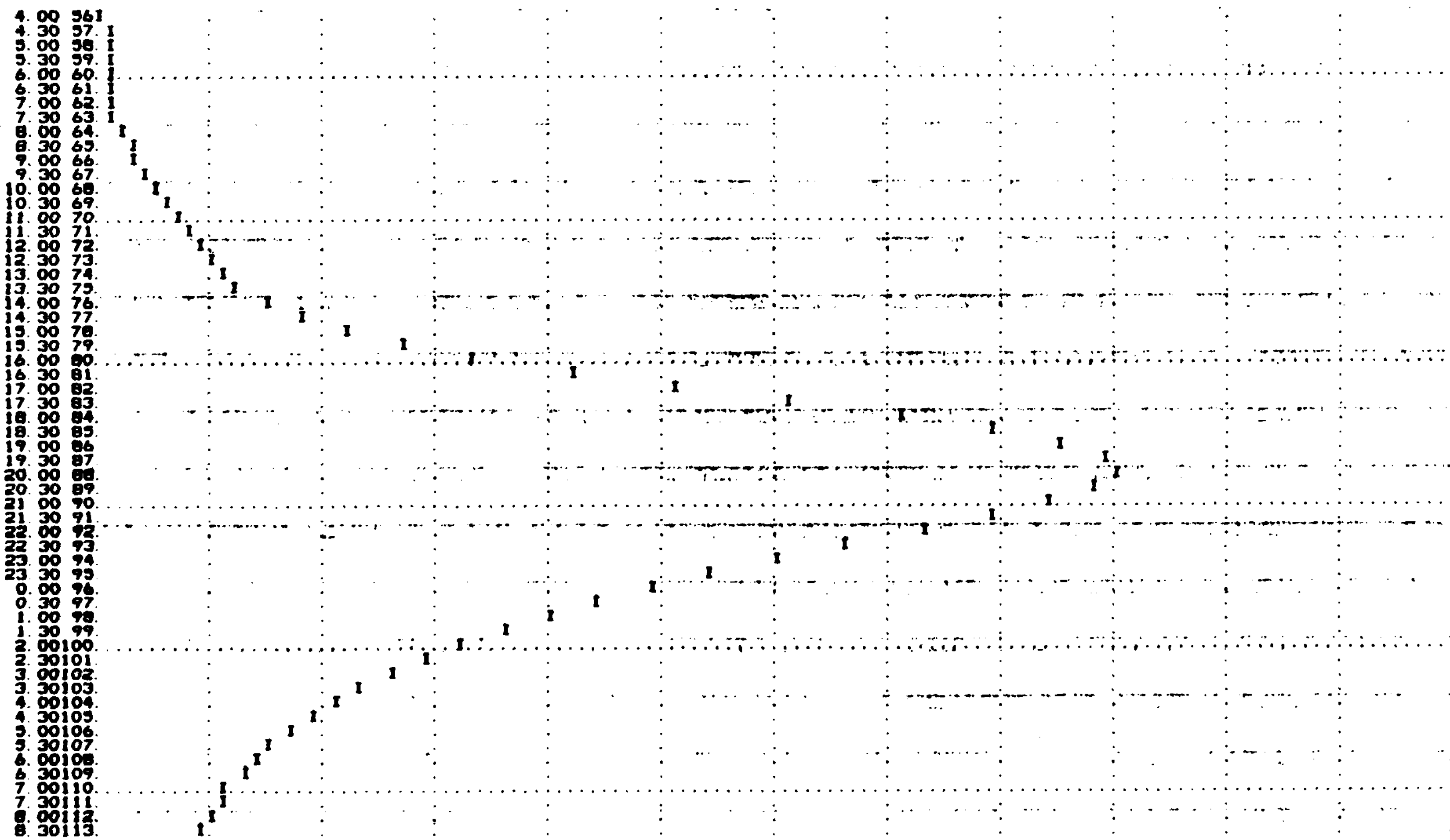
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	18025.	15382.	7067.	2915.	349776.
CMS	510.	436.	200.	83.	9905.
INCHES		2.42	4.45	4.59	4.59
MM		61.48	112.99	116.51	116.51
AC-FT		7627.	14016.	14454.	14454.
THOUS CU M		9408.	17289.	17828.	17828.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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7.30 63.
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8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86
19.30 87
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.

```
 9.00114.      I.
 9.30115.     I
 ?.00116.     I
  .30117.    I
  .)0118.    I
11.30119.    I
12 00120.....I.........................................................................
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

35.	34.	32.	31.	30.	29.	28.	27.	26.	25.
24.	23.	22.	21.	21.	20.	19.	19.	18.	18.
17.	17.	16.	16.	15.	15.	15.	14.	14.	14.
15.	15.	16.	17.	17.	18.	19.	20.	20.	20.
19.	18.	17.	16.	15.	14.	13.	12.	12.	14.
20.	29.	41.	57.	76.	96.	118.	139.	158.	176.
200.	241.	307.	403.	529.	685.	864.	1059.	1258.	1453.
1635.	1802.	1982.	2225.	2571.	3051.	3693.	4517.	5524.	6868.
8614.	10580.	12608.	14581.	16323.	17638.	18424.	18626.	18263.	17436.
16320.	15059.	13729.	12424.	11212.	10109.	9112.	8216.	7409.	6678.
6014.	5408.	4854.	4348.	3888.	3473.	3135.	2855.	2601.	2372.
2197.	2063.	1939.	1823.	1716.	1616.	1523.	1449.	1391.	1336.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	18626.	15874.	7302.	3012.	361435.
CMS	527.	450.	207.	85.	10235.
INCHES		2.50	4.60	4.74	4.74
MM		63.53	116.76	120.40	120.40
AC-FT		7881.	14484.	14935.	14935.
THOUS CU M		9722.	17865.	18422.	18422.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0.   2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   20000.   0.   0.
 0.30  11
 1.00  21
 1.30  31
 2.00  41
 2.30  51
 3.00  61
 3.30  71
 4.00  81
 4.30  91
 5.00 101.......................................................................................
 5.30 111
 6.00 121
 6.30 131
 7.00 141
 7.30 151
 8.00 161
 8.30 171
 9.00 181
```

9.30	19
10.00	20
10.30	21
11.00	22
11.30	23
12.00	24
12.30	25
13.00	26
13.30	27
14.00	28
14.30	29
15.00	30
15.30	31
16.00	32
16.30	33
17.00	34
17.30	35
18.00	36
18.30	37
19.00	38
19.30	39
20.00	40
20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50
1.30	51
2.00	52
2.30	53
3.00	54
3.30	55
4.00	56
4.30	57
5.00	58
5.30	59
6.00	60
6.30	61
7.00	62
7.30	63
8.00	64
8.30	65
9.00	66
9.30	67
10.00	68
10.30	69
11.00	70
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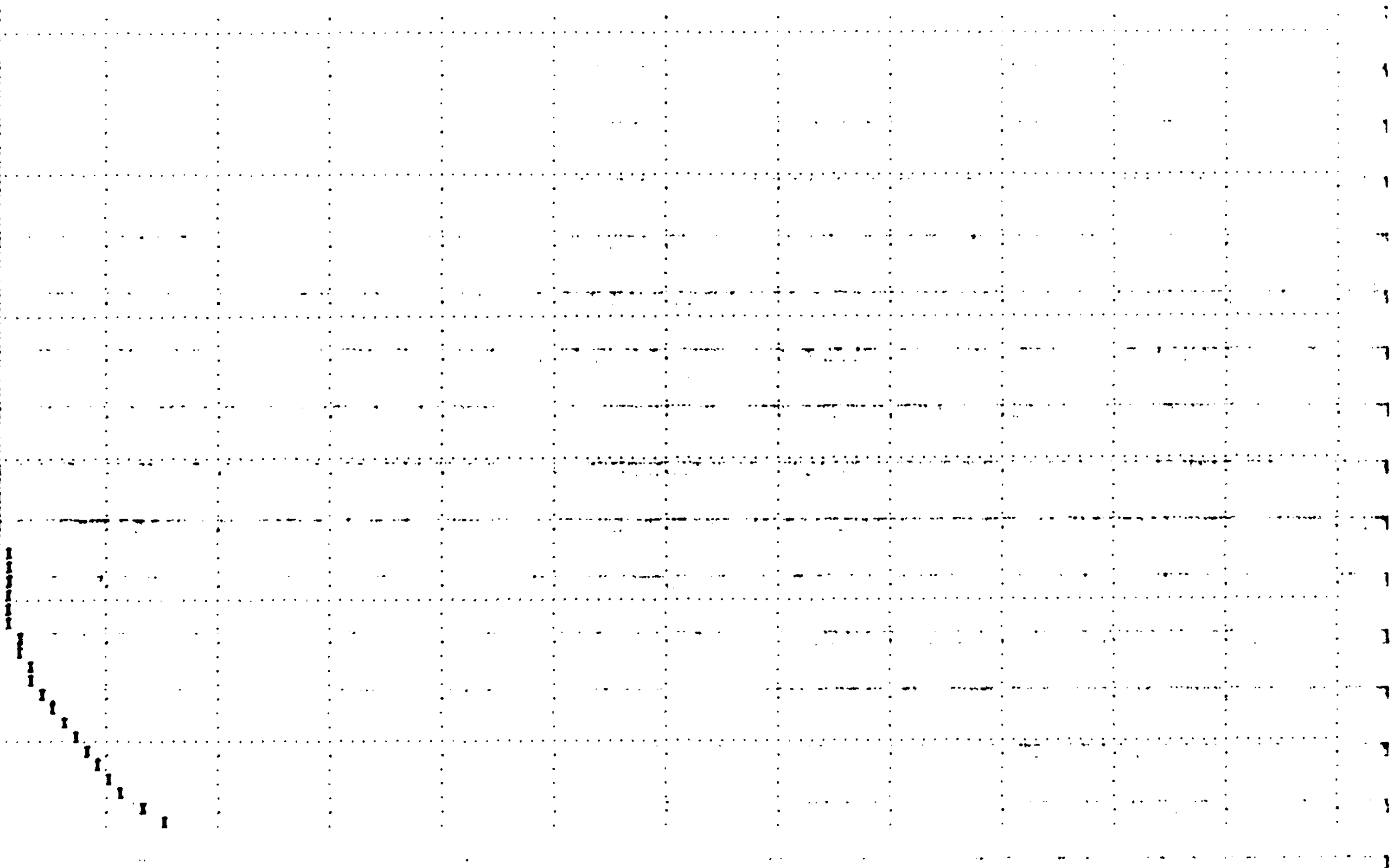
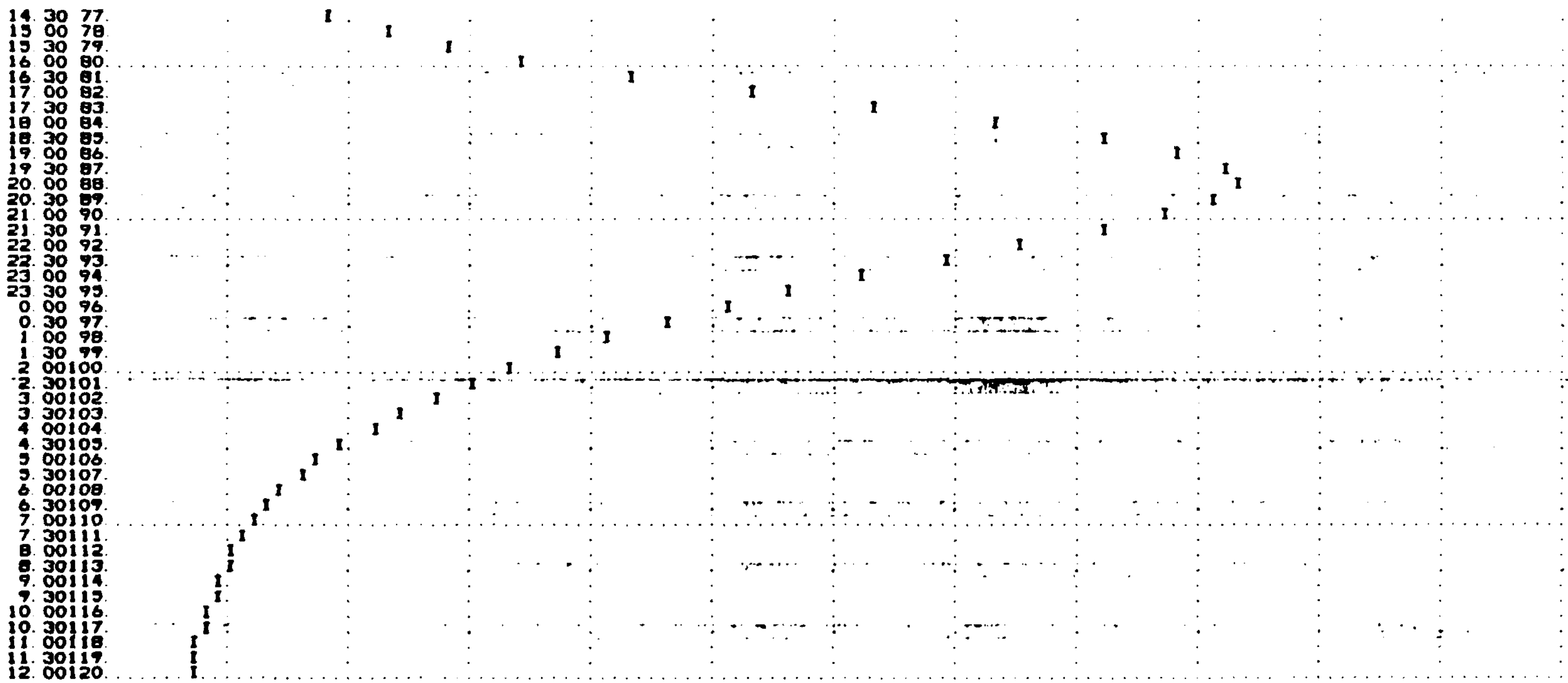
13.00	74
13.30	75
14.00	76





OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

36.	35.	34.	32.	31.	30.	29.	28.	27.	26.
25.	24.	23.	22.	21.	21.	20.	19.	19.	18.
18.	17.	17.	16.	16.	15.	15.	15.	15.	15.
15.	15.	16.	17.	18.	19.	20.	20.	20.	20.
20.	19.	18.	17.	16.	15.	14.	13.	13.	15.
20.	29.	42.	59.	78.	99.	121.	143.	163.	182.
206.	249.	317.	416.	546.	707.	892.	1093.	1299.	1500.

1688.	1860.	2046.	2297.	2654.	3149.	3813.	4662.	5702.	7090.
8891.	10922.	13015.	15051.	16849.	18207.	19018.	19227.	18852.	17999.
16846.	15545.	14172.	12825.	11574.	10435.	9406.	8481.	7648.	6894.
6208.	5583.	5011.	4488.	4014.	3585.	3236.	2947.	2685.	2448.
2268.	2130.	2001.	1882.	1771.	1668.	1572.	1495.	1436.	1379.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19227.	16407.	7538.	3109.	373094.
CMS	544.	465.	213.	88.	10565.
INCHES		2.58	4.74	4.89	4.89
MM		65.58	120.52	124.28	124.28
AC-FT		8136.	14951.	15417.	15417.
THOUS CU M		10035.	18442.	19017.	19017.

DVF

STATION 1

```
                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.     2000.    4000.    6000.    8000.    10000.   12000.   14000.   16000.   18000.   20000.   0.   0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
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 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
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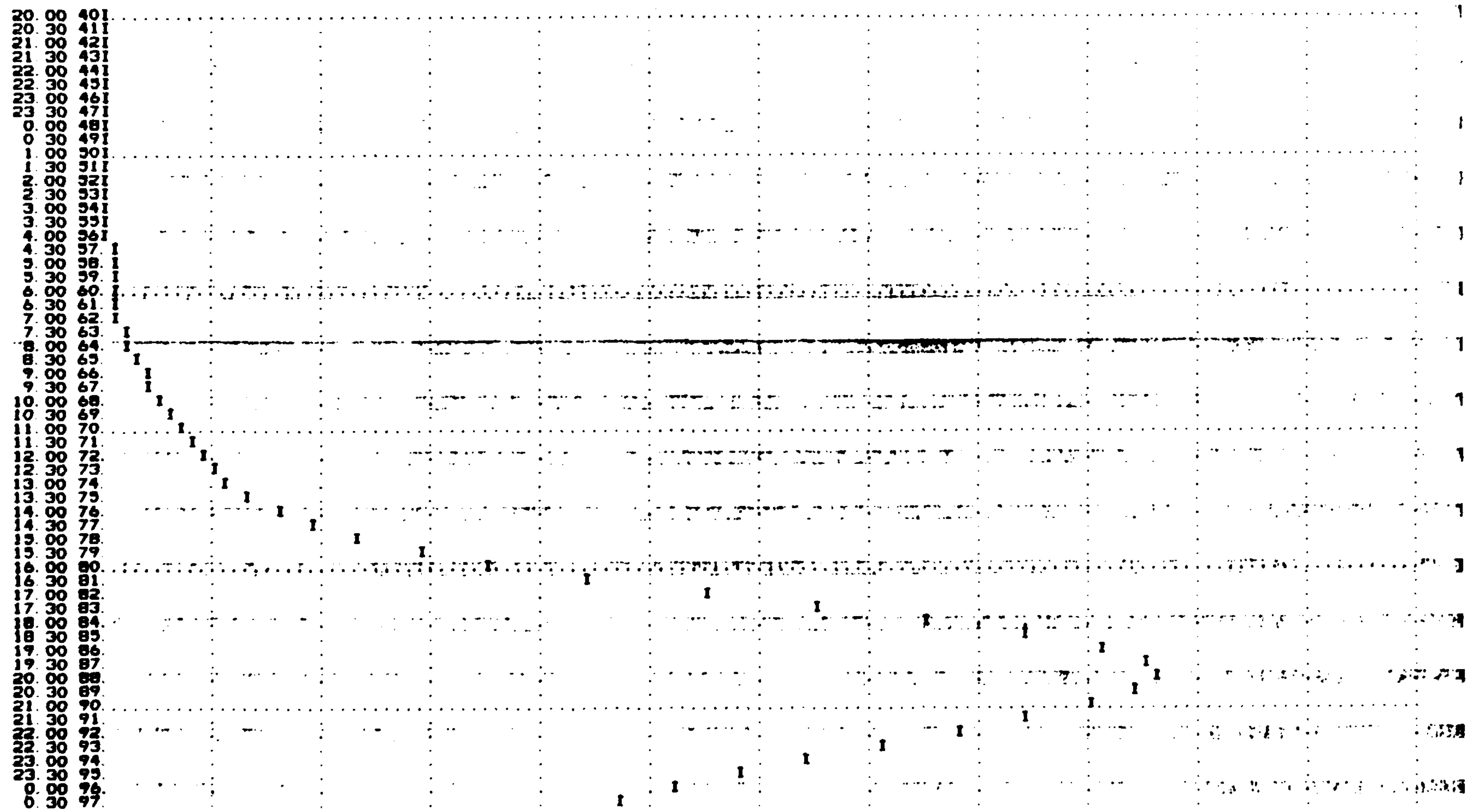
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1.30 51
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2.30 53
3.00 54
3.30 55
4.00 56
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
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13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
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19.00 86.
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22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.

```
 1.00 98.                                    I
 1.30 99.                                 I
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 3.30103.                    I
 4.00104.                  I
 4.30105.                I
 5.00106.              I
 5.30107.            I
 6.00108.           I
 6.30109.          I
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 8.00112.        I
 8.30113.       I
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10.00116.     I
10.30117.     I
11.00118.    I
11.30119.    I
12.00120. ...I
```

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

37.	36.	35.	33.	32.	31.	30.	28.	27.	26.
25.	25.	24.	23.	22.	21.	21.	20.	19.	19.
18.	18.	17.	17.	16.	16.	15.	15.	15.	15.
16.	16.	17.	18.	19.	20.	20.	21.	21.	21.
20.	19.	18.	17.	16.	15.	14.	13.	13.	15.
21.	30.	44.	61.	81.	103.	125.	148.	168.	188.
213.	256.	327.	429.	563.	729.	920.	1127.	1339.	1547.
1741.	1918.	2110.	2369.	2737.	3248.	3932.	4808.	5881.	7311.
9169.	11263.	13422.	15521.	17376.	18776.	19612.	19828.	19441.	18561.
17373.	16030.	14615.	13226.	11935.	10761.	9700.	8746.	7887.	7109.
6402.	5757.	5167.	4629.	4139.	3697.	3337.	3039.	2769.	2525.
2339.	2196.	2064.	1941.	1826.	1720.	1621.	1542.	1481.	1422.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19828.	16920.	7773.	3206.	384793.
CMS	561.	479.	220.	91.	10895.
INCHES		2.66	4.89	5.05	5.05
MM		67.63	124.29	128.16	128.16
AC-FT		8390.	15418.	15899.	15899.
THOUS CU M		10349.	19018.	19611.	19611.

DVF

STATION 1

```
                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.00  2I
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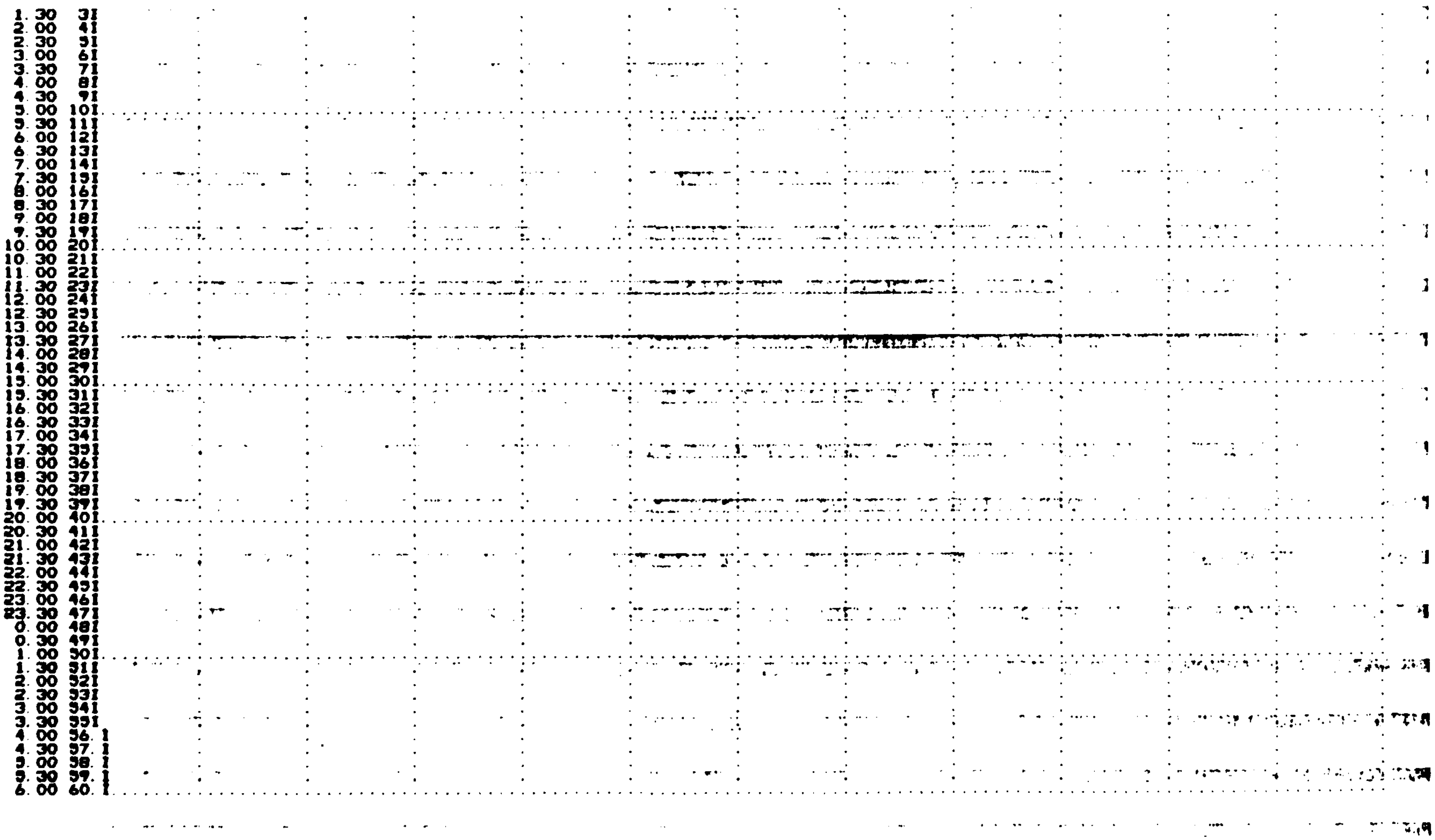
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6.00 121
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7.00 141
7.30 151
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8.30 171
9.00 181
9.30 191
10.00 201
10.30 211
11.00 221
11.30 231
12.00 241
12.30 251
13.00 261
13.30 271
14.00 281
14.30 291
15.00 301
15.30 311
16.00 321
16.30 331
17.00 341
17.30 351
18.00 361
18.30 371
19.00 381
19.30 391
20.00 401
20.30 411
21.00 421
21.30 431
22.00 441
22.30 451
23.00 461
23.30 471
0.00 481
0.30 491
1.00 501
1.30 511
2.00 521
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3.00 541
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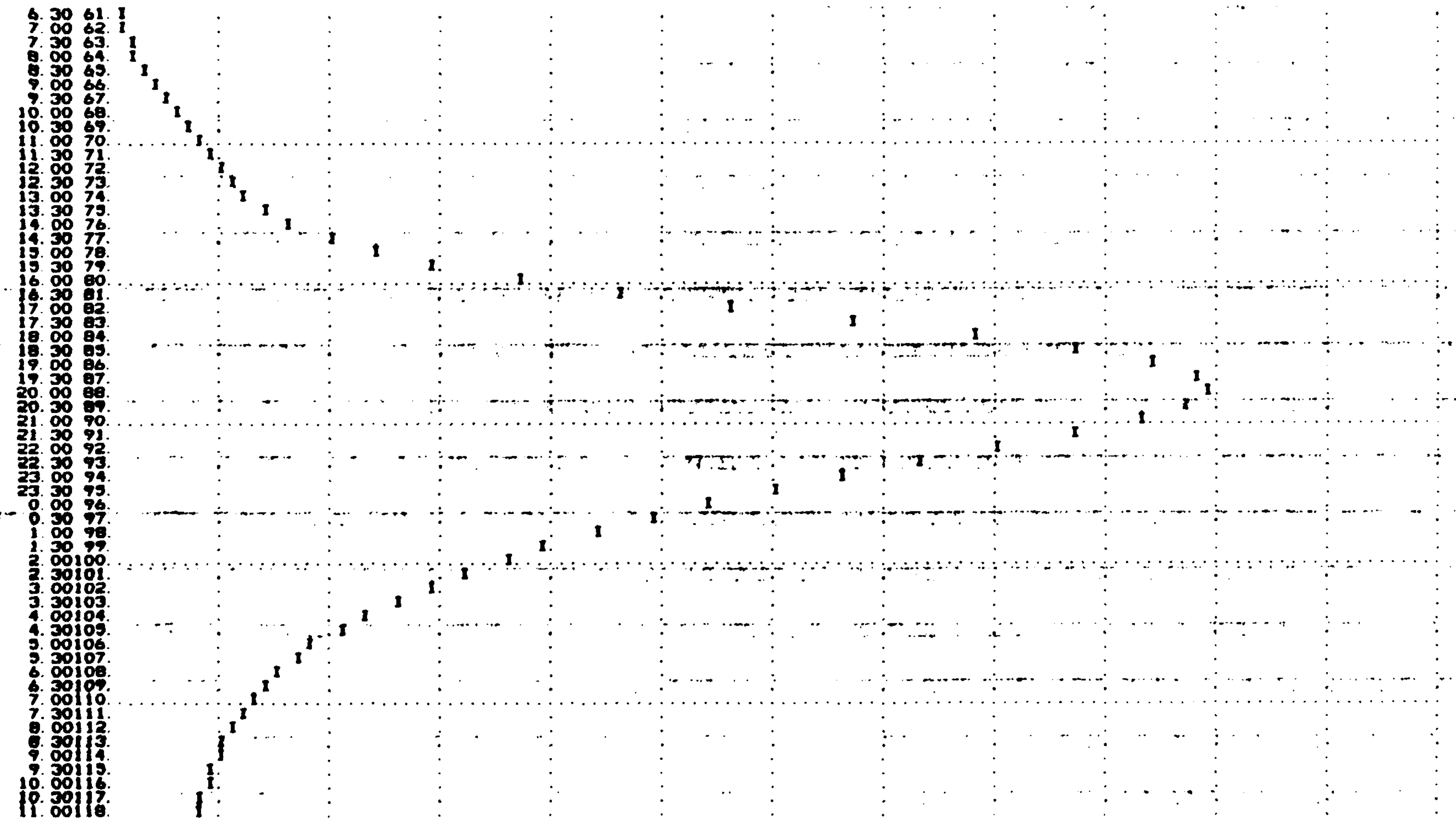
6.00 60.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16.00 80.
16.30 81.
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0.00 96.
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1.30 99.
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3.00102.
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8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.

```
11.30119.        I
12.00120.        I
```

OVN

SUM OF 2 HYDROGRAPHS AT   1   PLAN 1   RTIO 7

39.	37.	36.	34.	33.	32.	30	29.	28.	27.
26.	25.	24.	23.	23.	22.	21.	20.	20.	19.
19.	18.	18.	17.	17.	16.	16.	16.	16.	16.
16.	16.	17.	18.	19.	20.	21.	21.	22.	21.
21.	20.	19.	18.	17.	16.	14.	13.	13.	16.
22.	31.	45.	62.	83.	106.	129.	152.	174.	193.
219.	264.	337.	442.	581.	752.	948.	1161.	1380.	1593.
1793.	1976.	2174.	2441.	2820.	3346.	4051.	4954.	6059.	7533.
9447.	11604.	13828.	15992.	17902.	19345.	20207.	20429.	20030.	19123.
17899.	16516.	15057.	13627.	12297.	11087.	9994.	9011.	8126.	7325.
6596.	5932.	5324.	4769.	4265.	3809.	3438.	3131.	2853.	2601.
2410.	2263.	2126.	2000.	1882.	1772.	1670.	1589.	1526.	1465.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20429.	17432.	8009.	3303.	396413.
CMS	578.	494.	227.	94.	11225.
INCHES		2.74	5.04	5.20	5.20
MM		69.68	128.05	132.05	132.05
AC-FT		8644.	15885.	16381.	16381.
THOUS CU M		10662.	19594.	20205.	20205.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
           0.    2000.   4000.   6000.   8000.   10000.   12000.   14000.   16000.   18000.   20000.   22000.   0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
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11.00  22I
11.30  23I
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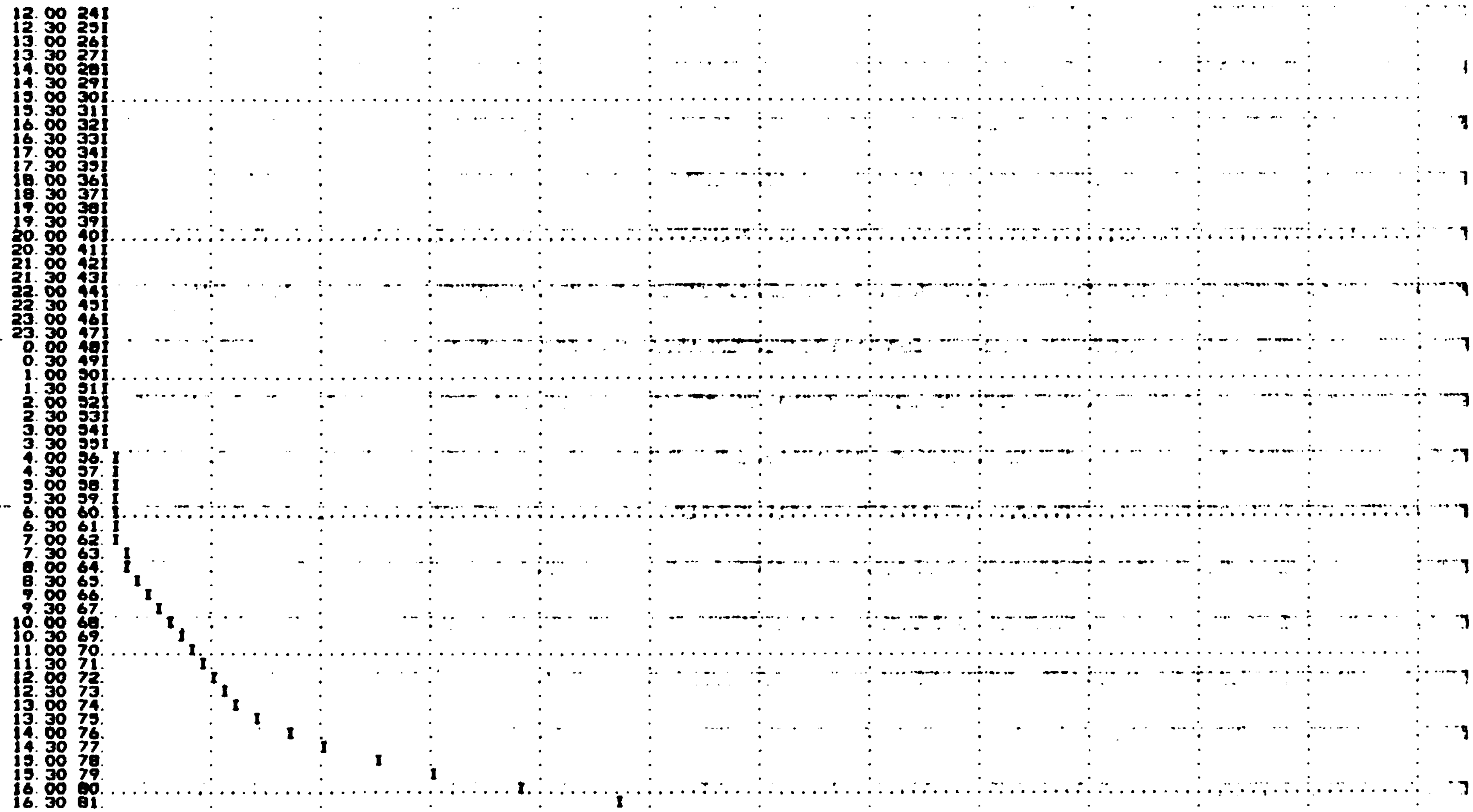
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18.30 37
19.00 38
19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
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23.30 47
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0.30 49
1.00 50
1.30 51
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3.00 54
3.30 55
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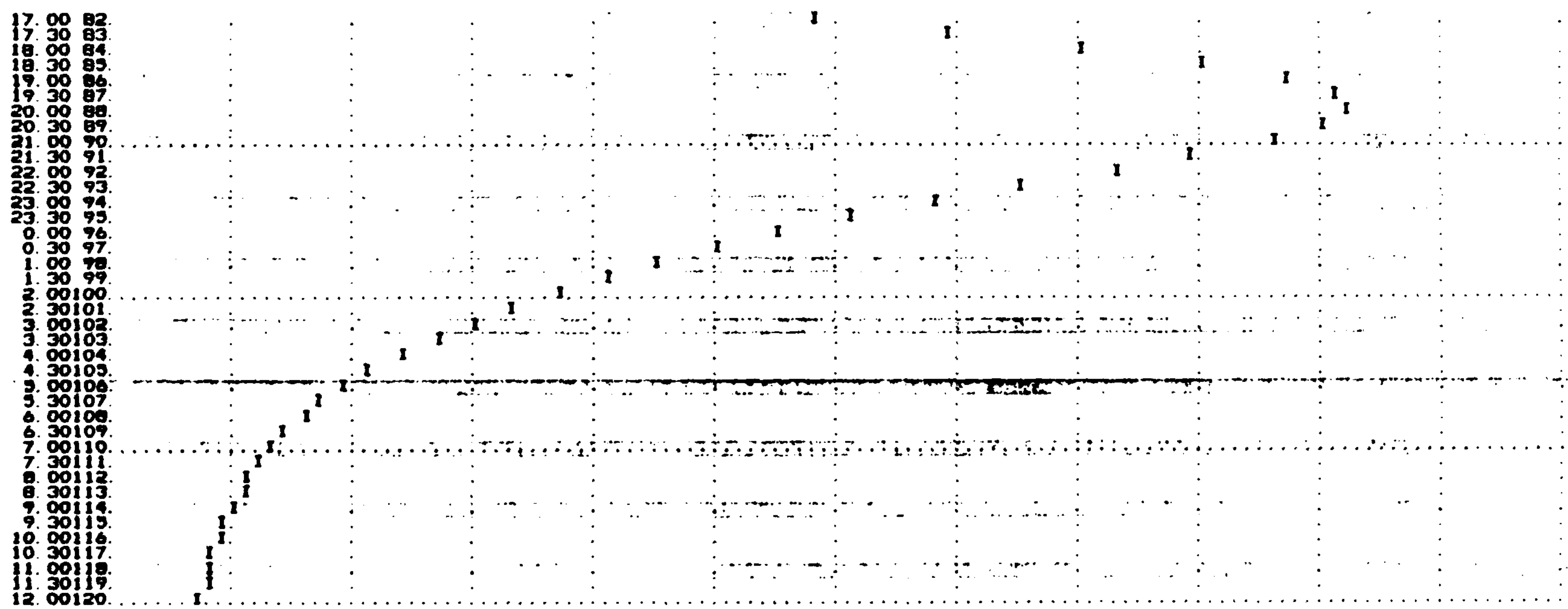
16.30 81.



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

57.	55.	52.	50.	48.	47.	45.	43.	42.	40.
39.	37.	36.	34.	33.	32.	31.	30.	29.	28.
27.	27.	26.	25.	24.	24.	23.	23.	23.	23.
24.	24.	25.	27.	28.	30.	31.	32.	32.	32.
31.	30.	28.	26.	25.	23.	21.	20.	20.	23.
32.	46.	66.	92.	122.	155.	190.	224.	255.	284.
322.	388.	495.	650.	854.	1109.	1394.	1708.	2029.	2343.
2637.	2906.	3197.	3589.	4147.	4921.	5957.	7285.	8910.	11078.
13893.	17065.	20336.	23517.	26327.	28448.	29716.	30042.	29456.	28123.
26323.	24288.	22143.	20039.	18084.	16305.	14697.	13251.	11949.	10772.
9701.	8723.	7829.	7013.	6272.	5602.	5057.	4609.	4196.	3825.
3544.	3328.	3127.	2941.	2767.	2606.	2456.	2336.	2244.	2154.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	30042.	25636.	11778.	4858.	582960.
CMS	851.	726.	334.	138.	16508.
INCHES		4.03	7.41	7.65	7.65
MM		102.47	188.31	194.19	194.19
AC-FT		12712.	23361.	24089.	24089.
THOUS CU M		15680.	28815.	29714.	29714.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.    32000.    0.    0.    0.    0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
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13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
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16.00  32I
16.30  33I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
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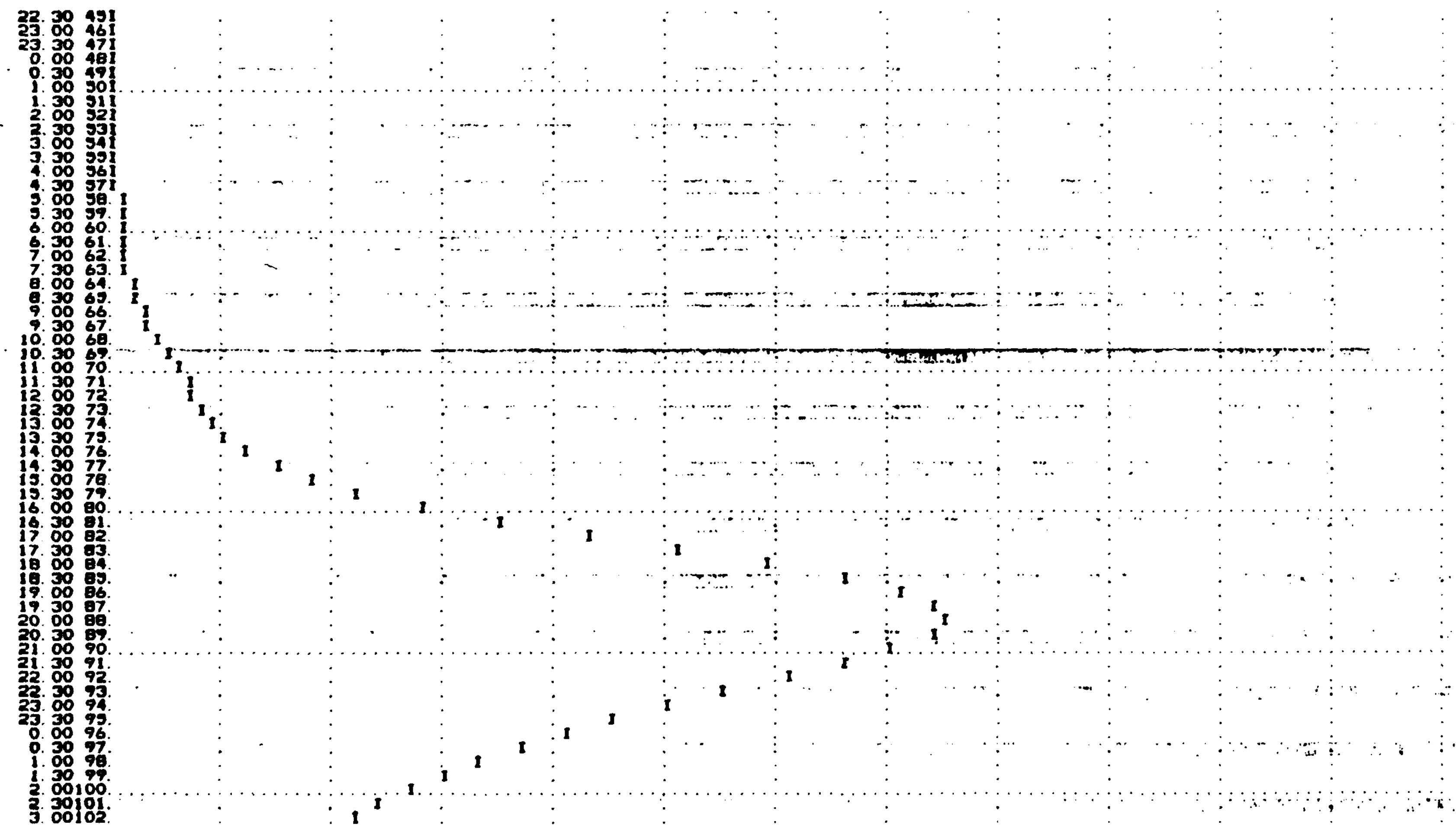
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3.00102.

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11.30119.          I
12.00120. . . . .  I. . . . . . . . . . . . . . . . . . . . . . . . .
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DVN

SUM OF 2 HYDROGRAPHS AT   I   PLAN 1 RTIO 9

114.	107.	105.	101.	97.	93.	90.	86.	83.	80.
77.	74.	72.	69.	67.	64.	62.	60.	58.	57.
55.	53.	52.	50.	49.	48.	47.	46.	46.	46.
47.	48.	51.	53.	56.	57.	62.	63.	64.	63.
62.	59.	56.	53.	49.	46.	43.	40.	40.	47.
64.	92.	132.	184.	244.	311.	379.	447.	511.	569.
644.	777.	991.	1299.	1708.	2210.	2788.	3415.	4059.	4687.
5275.	5812.	6394.	7179.	8295.	9842.	11914.	14370.	17820.	22156.
27786.	34130.	40671.	47034.	52654.	56896.	59432.	60085.	58912.	56245.
52645.	48577.	44287.	40078.	36167.	32610.	29375.	26502.	23899.	21543.
19401.	17446.	15658.	14026.	12543.	11203.	10113.	9210.	8391.	7651.
7088.	6656.	6254.	5881.	5534.	5212.	4911.	4673.	4487.	4309.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	60085.	51272.	23555.	9716.	1165919.
CMS	1701.	1452.	667.	275.	33015.
INCHES		8.07	14.83	15.29	15.29
MM		204.95	376.63	388.38	388.38
AC-FT		25424.	46721.	48178.	48178.
THOUS CU M		31360.	57630.	59427.	59427.

DVF

STATION   1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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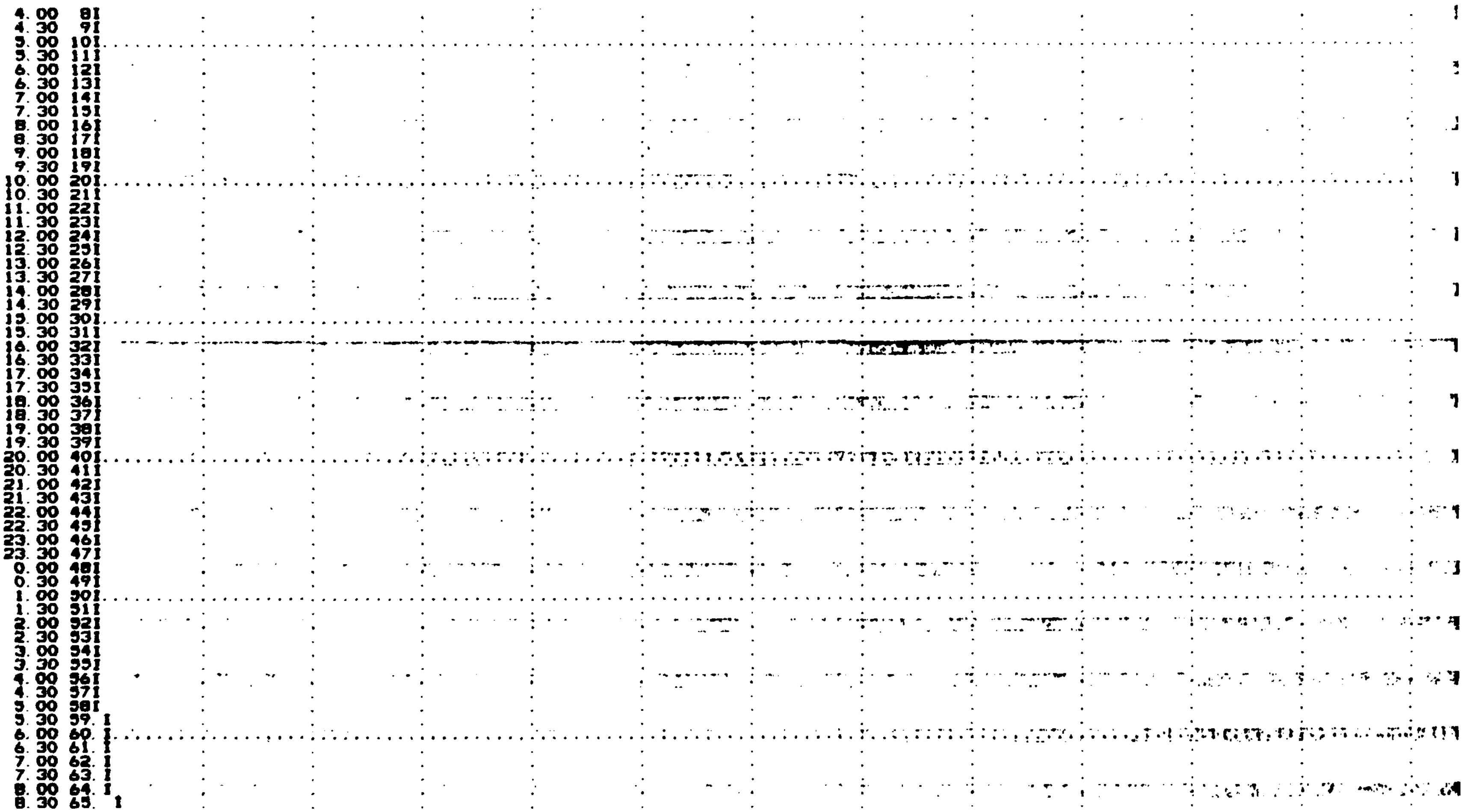
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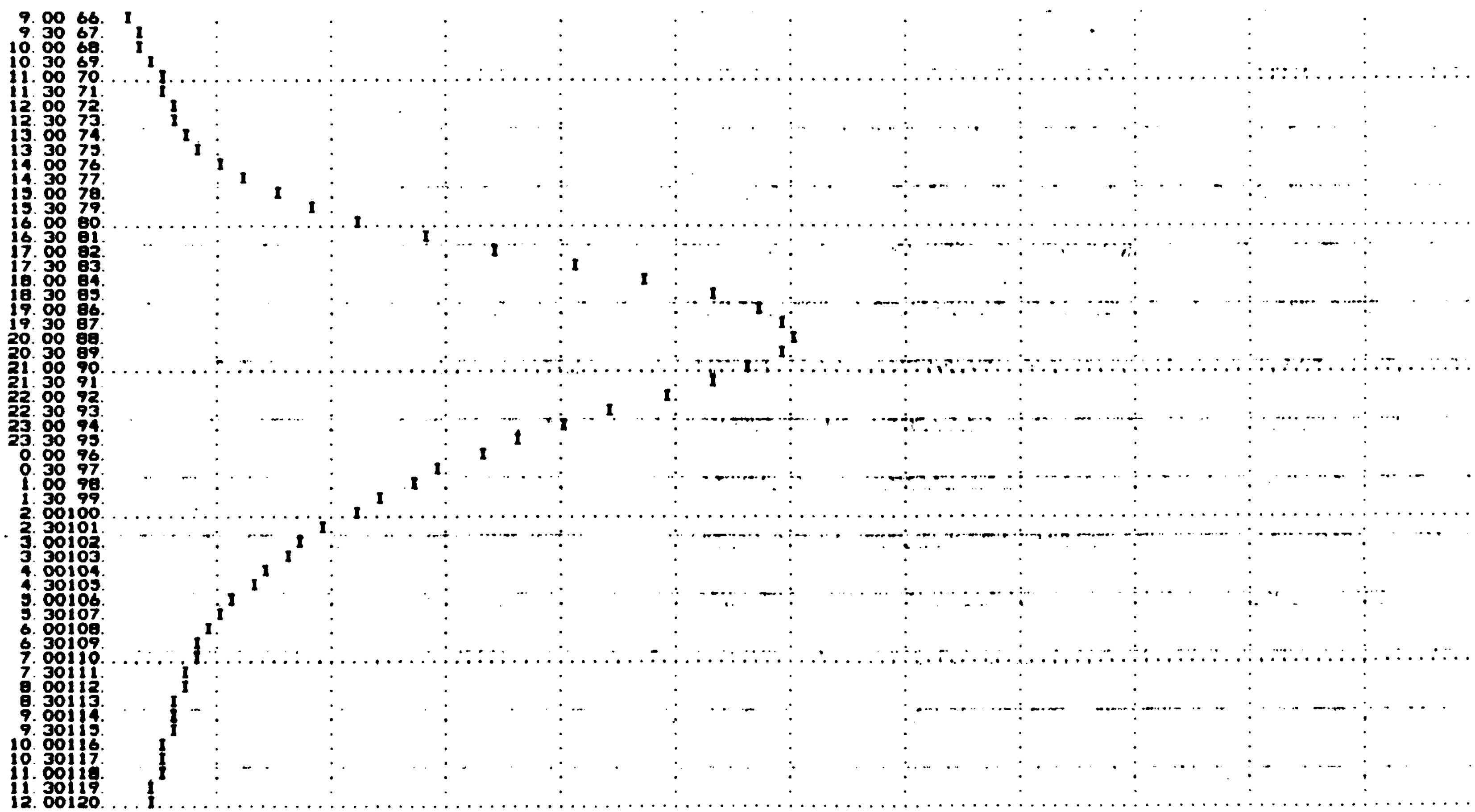
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11.30119.
12.00120.

OVN

```
**********       **********       **********       **********       **********
                       SUB-AREA RUNOFF COMPUTATION

           INFLOW HYDROGRAPH - SUBWATERSHED NO. 5
              ISTAG   ICOMP   IECON   ITAPE    JPLT    JPRT   INAME  ISTAGE   IAUTO
                  1       0       0       0       0       0       1       0       0

                              HYDROGRAPH DATA
           IHYDG    IUHG   TAREA    SNAP   TRSDA   TRSPC   RATIO   ISNOW   ISAME   LOCAL
               1       1    5.56    0.00    5.56    0.00   0.000       0       1       0

                                PRECIP DATA
                SPFE     PMS      R6     R12     R24     R48     R72     R96
                0.00   19.30   86.00  100.00  112.00  119.00    0.00    0.00
TRSPC COMPUTED BY THE PROGRAM IS 0.800

                                 LOSS DATA
      LROPT   STRKR   DLTKR   RTIOL   ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
          0    0.00    0.00    1.00    0.00    0.00    1.00    1.00    0.10    0.00    0.00

                           UNIT HYDROGRAPH DATA
                      TP=  3.05     CP=0.63     NTA=  0

                              RECESSION DATA
              STRTQ=   -2.00     QRCSN=   -0.10     RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 6.98 AND R= 5.41 INTERVALS

      UNIT HYDROGRAPH 33 END-OF-PERIOD ORDINATES, LAG=   3.02 HOURS, CP= 0.63  VOL= 1.00
       47.      170.      337.      516.      664.      746.      749.      667.      554.      461.
      383.      318.      264.      219.      182.      151.      126.      105.       87.       72.
       60.       50.       41.       34.       29.       24.       20.       16.       14.       11.
        9.        8.        6.
```

END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	11.	1.02	6.30	61	0.18	0.13	0.05	77.
1.01	1.00	2	0.00	0.00	0.00	10.	1.02	7.00	62	0.18	0.13	0.05	100.
1.01	1.30	3	0.00	0.00	0.00	10.	1.02	7.30	63	0.18	0.13	0.05	142.
1.01	2.00	4	0.00	0.00	0.00	9.	1.02	8.00	64	0.18	0.13	0.05	205.
1.01	2.30	5	0.00	0.00	0.00	9.	1.02	8.30	65	0.18	0.13	0.05	285.
1.01	3.00	6	0.00	0.00	0.00	9.	1.02	9.00	66	0.18	0.13	0.05	374.
1.01	3.30	7	0.00	0.00	0.00	8.	1.02	9.30	67	0.18	0.13	0.05	464.
1.01	4.00	8	0.00	0.00	0.00	8.	1.02	10.00	68	0.18	0.13	0.05	544.
1.01	4.30	9	0.00	0.00	0.00	8.	1.02	10.30	69	0.18	0.13	0.05	610.
1.01	5.00	10	0.00	0.00	0.00	8.	1.02	11.00	70	0.18	0.13	0.05	665.
1.01	5.30	11	0.00	0.00	0.00	7.	1.02	11.30	71	0.18	0.13	0.05	711.
1.01	6.00	12	0.00	0.00	0.00	7.	1.02	12.00	72	0.18	0.13	0.05	749.
1.01	6.30	13	0.01	0.00	0.01	7.	1.02	12.30	73	0.66	0.61	0.05	803.
1.01	7.00	14	0.01	0.00	0.01	6.	1.02	13.00	74	0.66	0.61	0.05	912.
1.01	7.30	15	0.01	0.00	0.01	6.	1.02	13.30	75	0.80	0.75	0.05	1103.
1.01	8.00	16	0.01	0.00	0.01	6.	1.02	14.00	76	0.80	0.75	0.05	1393.
1.01	8.30	17	0.01	0.00	0.01	6.	1.02	14.30	77	1.00	0.95	0.05	1783.
1.01	9.00	18	0.01	0.00	0.01	6.	1.02	15.00	78	1.00	0.95	0.05	2259.

1.01	9.30	19	0.01	0.00	0.01	5.	1.02	15.30	79	1.21	1.16	0.05	2797.
1.01	10.00	20	0.01	0.00	0.01	5.	1.02	16.00	80	3.83	3.79	0.05	3489.
1.01	10.30	21	0.01	0.00	0.01	5.	1.02	16.30	81	0.93	0.88	0.05	4380.
1.01	11.00	22	0.01	0.00	0.01	5.	1.02	17.00	82	0.93	0.88	0.05	5346.
1.01	11.30	23	0.01	0.00	0.01	5.	1.02	17.30	83	0.73	0.68	0.05	6267.
1.01	12.00	24	0.01	0.00	0.01	5.	1.02	18.00	84	0.73	0.68	0.05	6989.
1.01	12.30	25	0.04	0.00	0.04	4.	1.02	18.30	85	0.09	0.04	0.05	7373.
1.01	13.00	26	0.04	0.00	0.04	4.	1.02	19.00	86	0.09	0.04	0.05	7347.
1.01	13.30	27	0.05	0.00	0.05	4.	1.02	19.30	87	0.09	0.04	0.05	6896.
1.01	14.00	28	0.05	0.00	0.05	4.	1.02	20.00	88	0.09	0.04	0.05	6201.
1.01	14.30	29	0.06	0.00	0.06	4.	1.02	20.30	89	0.09	0.04	0.05	5448.
1.01	15.00	30	0.06	0.00	0.06	4.	1.02	21.00	90	0.09	0.04	0.05	4689.
1.01	15.30	31	0.08	0.00	0.08	4.	1.02	21.30	91	0.09	0.04	0.05	3977.
1.01	16.00	32	0.24	0.00	0.24	4.	1.02	22.00	92	0.09	0.04	0.05	3356.
1.01	16.30	33	0.06	0.00	0.06	4.	1.02	22.30	93	0.09	0.04	0.05	2840.
1.01	17.00	34	0.06	0.00	0.06	5.	1.02	23.00	94	0.09	0.04	0.05	2411.
1.01	17.30	35	0.05	0.00	0.05	5.	1.02	23.30	95	0.09	0.04	0.05	2055.
1.01	18.00	36	0.05	0.00	0.05	5.	1.03	0.00	96	0.09	0.04	0.05	1758.
1.01	18.30	37	0.01	0.00	0.01	5.	1.03	0.30	97	0.00	0.00	0.00	1510.
1.01	19.00	38	0.01	0.00	0.01	5.	1.03	1.00	98	0.00	0.00	0.00	1298.
1.01	19.30	39	0.01	0.00	0.01	5.	1.03	1.30	99	0.00	0.00	0.00	1114.
1.01	20.00	40	0.01	0.00	0.01	4.	1.03	2.00	100	0.00	0.00	0.00	951.
1.01	20.30	41	0.01	0.00	0.01	4.	1.03	2.30	101	0.00	0.00	0.00	805.
1.01	21.00	42	0.01	0.00	0.01	4.	1.03	3.00	102	0.00	0.00	0.00	723.
1.01	21.30	43	0.01	0.00	0.01	3.	1.03	3.30	103	0.00	0.00	0.00	695.
1.01	22.00	44	0.01	0.00	0.01	3.	1.03	4.00	104	0.00	0.00	0.00	667.
1.01	22.30	45	0.01	0.00	0.01	3.	1.03	4.30	105	0.00	0.00	0.00	641.
1.01	23.00	46	0.01	0.00	0.01	3.	1.03	5.00	106	0.00	0.00	0.00	615.
1.01	23.30	47	0.01	0.00	0.01	2.	1.03	5.30	107	0.00	0.00	0.00	591.
1.02	0.00	48	0.01	0.00	0.01	2.	1.03	6.00	108	0.00	0.00	0.00	567.
1.02	0.30	49	0.06	0.01	0.05	3.	1.03	6.30	109	0.00	0.00	0.00	545.
1.02	1.00	50	0.06	0.01	0.05	5.	1.03	7.00	110	0.00	0.00	0.00	523.
1.02	1.30	51	0.06	0.01	0.05	9.	1.03	7.30	111	0.00	0.00	0.00	502.
1.02	2.00	52	0.06	0.01	0.05	15.	1.03	8.00	112	0.00	0.00	0.00	482.
1.02	2.30	53	0.06	0.01	0.05	22.	1.03	8.30	113	0.00	0.00	0.00	463.
1.02	3.00	54	0.06	0.01	0.05	31.	1.03	9.00	114	0.00	0.00	0.00	445.
1.02	3.30	55	0.06	0.01	0.05	40.	1.03	9.30	115	0.00	0.00	0.00	427.
1.02	4.00	56	0.06	0.01	0.05	48.	1.03	10.00	116	0.00	0.00	0.00	410.
1.02	4.30	57	0.06	0.01	0.05	55.	1.03	10.30	117	0.00	0.00	0.00	394.
1.02	5.00	58	0.06	0.01	0.05	60.	1.03	11.00	118	0.00	0.00	0.00	378.
1.02	5.30	59	0.06	0.01	0.05	65.	1.03	11.30	119	0.00	0.00	0.00	363.
1.02	6.00	60	0.06	0.01	0.05	68.	1.03	12.00	120	0.00	0.00	0.00	349.
									SUM	18.37	14.91	3.46	112942.
										(467.)	(379.)	(88.)	(3198. 18)

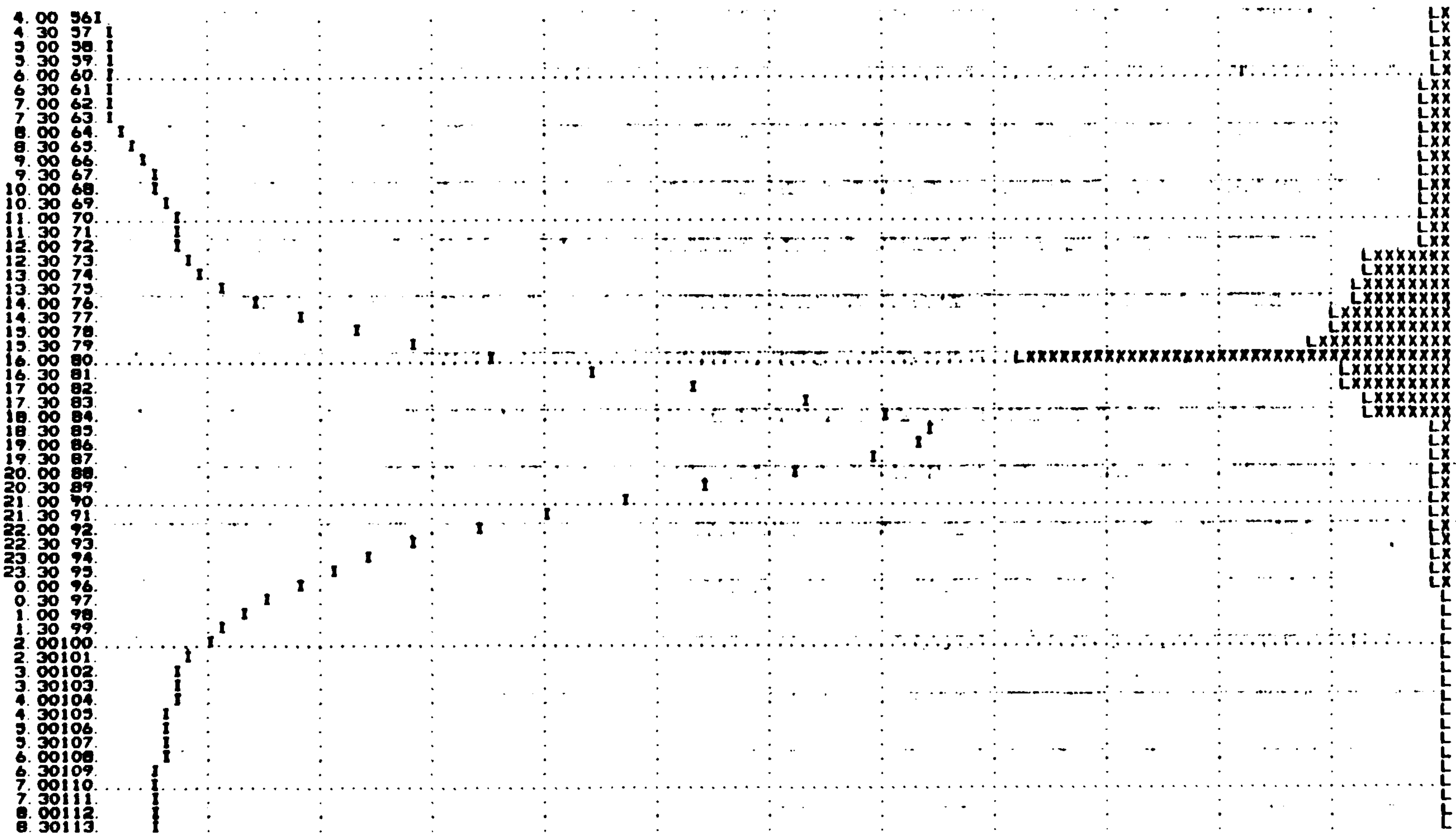
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7373.	5694.	2265.	940.	112758.
CMS	209.	161.	64.	27.	3193.
INCHES		9.53	15.16	15.72	15.72
MM		241.99	385.05	399.32	399.32
AC-FT		2824.	44[illegible]	4659.	4659.
THOUS CU M		3483.	[illegible]	5747.	5747.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

	0.	1000.	2000.	3000.	4000.	5000.	6000.	7000.	8000.	0.	0.	0.	0.
											PRECIP(L) AND EXCESS(X)		
	0.	0.	0.	0.	0.	0.	0.	0.	4.	3.	2.	1.	0.
0.30	1I												L
1.00	2I												L
1.30	3I												L
2.00	4I												L
2.30	5I												L
3.00	6I												L
3.30	7I												L
4.00	8I												L
4.30	9I												L
5.00	10I												L
5.30	11I												L
6.00	12I												L
6.30	13I												L
7.00	14I												L
7.30	15I												L
8.00	16I												L
8.30	17I												L
9.00	18I												L
9.30	19I												L
10.00	20I												L
10.30	21I												L
11.00	22I												L
11.30	23I												L
12.00	24I												L
12.30	25I												L
13.00	26I												L
13.30	27I												L
14.00	28I												L
14.30	29I												LX
15.00	30I												LX
15.30	31I												LX
16.00	32I												LLX
16.30	33I												LX
17.00	34I												LX
17.30	35I												L
18.00	36I												L
18.30	37I												L
19.00	38I												L
19.30	39I												L
20.00	40I												L
20.30	41I												L
21.00	42I												L
21.30	43I												L
22.00	44I												L
22.30	45I												L
23.00	46I												L
23.30	47I												L
0.00	48I												L
0.30	49I												LX
1.00	50I												LX
1.30	51I												LX
2.00	52I												LX
2.30	53I												LX
3.00	54I												LX
3.30	55I												LX


4.00 56.
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
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16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
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8.00112.
8.30113.

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 9.30115.  I
10.00116.  I
10.30117.  I
11.00118.  I
11.30119.  I
12.00120. I
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OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	0.	0.	1.	1.
2.	3.	4.	6.	8.	10.	11.	12.	13.	14.
15.	20.	28.	41.	57.	75.	93.	109.	122.	133.
142.	150.	161.	182.	221.	279.	357.	452.	559.	678.
876.	1069.	1253.	1398.	1475.	1469.	1379.	1240.	1090.	938.
795.	671.	568.	482.	411.	352.	302.	260.	223.	190.
161.	145.	139.	133.	128.	123.	118.	113.	109.	105.
100.	96.	93.	89.	85.	82.	79.	76.	73.	70.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1475.	1139.	453.	188.	22552.
CMS	42.	32.	13.	5.	639.
INCHES		1.91	3.03	3.14	3.14
MM		48.40	77.01	79.86	79.86
AC-FT		563.	899.	932.	932.
THOUS CU M		697.	1108.	1149.	1149.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

3.	3.	3.	3.	3.	3.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	4.	7.	9.	12.	14.	16.	17.	19.	20.
22.	29.	41.	59.	83.	109.	135.	158.	177.	193.
206.	217.	233.	264.	320.	404.	517.	655.	811.	1012.
1270.	1550.	1817.	2027.	2138.	2131.	2000.	1798.	1580.	1360.
1153.	973.	824.	699.	596.	510.	438.	377.	323.	276.
233.	210.	201.	193.	186.	178.	171.	164.	158.	152.
146.	140.	134.	129.	124.	119.	114.	110.	105.	101.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2138.	1651.	657.	272.	32700.
CMS	61.	47.	19.	8.	926.
INCHES		2.76	4.40	4.56	4.56
MM		70.18	111.67	115.80	115.80
AC-FT		819.	1303.	1351.	1351.
THOUS CU M		1010.	1607.	1667.	1667.

FLAHERTY GIAVARA ASSOCIATES, P.C.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

3.	3.	3.	3.	3.	3.	3.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
3.	4.	7.	9.	12.	14.	16.	18.	19.	21.
23.	30.	43.	61.	85.	112.	139.	163.	183.	200.
213.	225.	241.	274.	331.	418.	535.	678.	839.	1047.
1314.	1604.	1880.	2097.	2212.	2204.	2069.	1860.	1634.	1407.
1193.	1007.	852.	723.	616.	528.	453.	390.	334.	285.
242.	217.	208.	200.	192.	185.	177.	170.	163.	157.
151.	149.	139.	133.	128.	123.	118.	113.	109.	105.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2212.	1708.	680.	282.	33827.
CMS	63.	48.	19.	8.	958.
INCHES		2.86	4.55	4.72	4.72
MM		72.60	115.52	119.79	119.79
AC-FT		847.	1348.	1398.	1398.
THOUS CU M		1045.	1663.	1724.	1724.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

3.	3.	3.	3.	3.	3.	3.	3.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	2.	2.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
3.	3.	7.	10.	12.	15.	17.	19.	20.	21.
24.	31.	44.	63.	88.	116.	144.	169.	189.	206.
220.	232.	249.	283.	342.	432.	553.	700.	867.	1082.
1358.	1657.	1943.	2164.	2286.	2278.	2138.	1922.	1689.	1454.
1233.	1040.	880.	747.	637.	545.	468.	403.	349.	295.
250.	224.	219.	207.	199.	191.	183.	176.	169.	162.
156.	149.	144.	138.	132.	127.	122.	117.	113.	108.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2286.	1765.	702.	291.	34955.
CMS	65.	50.	20.	8.	990.
INCHES		2.95	4.70	4.87	4.87
MM		75.02	119.37	123.79	123.79
AC-FT		875.	1393.	1444.	1444.
THOUS CU M		1080.	1718.	1782.	1782.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

3.	3.	3.	3.	3.	3.	3.	3.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	2.	2.	2.	2.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
3.	3.	7.	10.	13.	15.	18.	17.	21.	22.
25.	32.	45.	65.	91.	120.	148.	174.	195.	213.
227.	240.	257.	292.	353.	446.	571.	723.	895.	1116.
1402.	1711.	2005.	2236.	2359.	2351.	2207.	1984.	1743.	1501.
1273.	1074.	909.	772.	657.	563.	483.	416.	357.	304.
258.	231.	222.	213.	205.	197.	189.	181.	174.	167.

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        161.    154.    148.    142.    137.    131.    126.    121.    118.    112.

                         PEAK   6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
              CFS        2359.   1822.     725.      301.       36083.
              CMS          67.     52.      21.        9.        1022.
           INCHES                 3.05     4.85      5.03        5.03
               MM                77.44   123.22    127.78      127.78
            AC-FT                 904.    1438.     1491.       1491.
       THOUS CU M                1115.    1773.     1839.       1839.

                   HYDROGRAPH AT STA     1 FOR PLAN 1, RTIO 6
           3.      3.      3.      3.      3.      3.      3.      3.      3.      2.
           2.      2.      2.      2.      2.      2.      2.      2.      2.      2.
           2.      2.      2.      1.      1.      1.      1.      1.      1.      1.
           1.      1.      1.      2.      2.      2.      2.      2.      2.      1.
           1.      1.      1.      1.      1.      1.      1.      1.      1.      2.
           3.      5.      7.     10.     13.     16.     18.     20.     21.     23.
          25.     33.     47.     68.     74.    123.    153.    179.    201.    219.
         235.    247.    265.    301.    364.    460.    588.    745.    923.   1151.
        1848.   1784.   2068.   2308.   2433.   2424.   2276.   2046.   1778.   1547.
        1312.   1107.    937.    796.    678.    580.    498.    428.    368.    314.
         266.    239.    229.    220.    211.    203.    195.    187.    180.    173.
         166.    159.    153.    147.    141.    135.    130.    125.    120.    115.

                         PEAK   6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
              CFS        2433.   1879.     748.      310.       37210.
              CMS          69.     53.      21.        9.        1054.
           INCHES                 3.14     5.00      5.19        5.19
               MM                79.86   127.07    131.77      131.77
            AC-FT                 932.    1483.     1538.       1538.
       THOUS CU M                1149.    1829.     1897.       1897.

                   HYDROGRAPH AT STA     1 FOR PLAN 1, RTIO 7
           4.      3.      3.      3.      3.      3.      3.      3.      3.      3.
           2.      2.      2.      2.      2.      2.      2.      2.      2.      2.
           2.      2.      2.      2.      1.      1.      1.      1.      1.      1.
           1.      1.      1.      2.      2.      2.      2.      2.      2.      1.
           1.      1.      1.      1.      1.      1.      1.      1.      1.      2.
           3.      5.      8.     11.     14.     16.     19.     20.     22.     23.
          26.     34.     48.     70.     97.    127.    158.    185.    207.    226.
         242.    255.    273.    310.    375.    474.    606.    768.    951.   1186.
        1489.   1818.   2131.   2376.   2507.   2498.   2344.   2108.   1852.   1594.
        1352.   1141.    966.    820.    699.    598.    513.    441.    379.    323.
         274.    246.    236.    227.    218.    209.    201.    193.    185.    178.
         171.    164.    157.    151.    145.    139.    134.    129.    123.    119.

                         PEAK   6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
              CFS        2507.   1936.     770.      319.       38338.
              CMS          71.     55.      22.        9.        1086.
           INCHES                 3.24     5.15      5.35        5.35
               MM                82.28   130.92    135.77      135.77
            AC-FT                 960.    1528.     1584.       1584.
       THOUS CU M                1184.    1884.     1954.       1954.

                   HYDROGRAPH AT STA     1 FOR PLAN 1, RTIO 8
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5.	5.	5.	5.	5.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	1.	1.	1.	1.	1.	2.
4.	7.	11.	16.	20.	24.	27.	30.	32.	34.
39.	50.	71.	102.	142.	187.	232.	272.	305.	333.
355.	374.	402.	456.	551.	696.	892.	1129.	1398.	1744.
2190.	2673.	3133.	3494.	3687.	3673.	3448.	3100.	2724.	2345.
1988.	1678.	1420.	1206.	1027.	879.	755.	649.	557.	475.
403.	362.	347.	334.	320.	308.	295.	284.	272.	261.
251.	241.	232.	222.	214.	205.	197.	189.	182.	174.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	3687.	2847.	1133.	470.	56379.
CMS	104.	81.	32.	13.	1596.
INCHES		4.76	7.58	7.86	7.86
MM		121.00	192.53	199.66	199.66
AC-FT		1412.	2246.	2330.	2330.
THOUS CU M		1741.	2771.	2874.	2874.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

11.	10.	10.	9.	9.	9.	8.	8.	8.	8.
7.	7.	7.	6.	6.	6.	6.	6.	5.	5.
5.	5.	5.	5.	4.	4.	4.	4.	4.	4.
4.	4.	4.	5.	5.	5.	5.	5.	5.	4.
4.	4.	3.	3.	3.	3.	2.	2.	3.	5.
9.	15.	22.	31.	40.	48.	55.	60.	65.	68.
77.	100.	142.	205.	285.	374.	464.	544.	610.	665.
711.	749.	803.	912.	1103.	1393.	1783.	2259.	2797.	3489.
4380.	5346.	6267.	6989.	7373.	7347.	6896.	6201.	5448.	4689.
3977.	3356.	2840.	2411.	2035.	1758.	1510.	1298.	1114.	951.
805.	723.	695.	667.	641.	615.	591.	567.	545.	523.
502.	482.	463.	445.	427.	410.	394.	378.	363.	349.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7373.	5694.	2265.	940.	112758.
CMS	209.	161.	64.	27.	3193.
INCHES		9.53	15.16	15.72	15.72
MM		241.99	385.05	399.32	399.32
AC-FT		2824.	4493.	4659.	4659.
THOUS CU M		3483.	5542.	5747.	5747.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

25.	24.	23.	22.	21.	20.	20.	19.	18.	18.

17.	16.	18.	15.	15.	14.	14.	13.	13.	12.
12.	12.	11.	11.	11.	10.	10.	10.	10.	10.
10.	11.	11.	12.	12.	13.	13.	14.	14.	13.
13.	13.	12.	11.	10.	10.	9.	8.	8.	10.
14.	21.	31.	43.	57.	72.	87.	101.	115.	127.
144.	175.	227.	301.	398.	517.	650.	792.	934.	1070.
1197.	1312.	1439.	1618.	1879.	2247.	2740.	3366.	4123.	5129.
6433.	7895.	9388.	10805.	12005.	12849.	13265.	13257.	12872.	12187.
11324.	10387.	9425.	8478.	7644.	6874.	6181.	5560.	5003.	4499.
4041.	3634.	3271.	2939.	2637.	2364.	2141.	1955.	1787.	1635.
1518.	1428.	1343.	1265.	1192.	1124.	1061.	1010.	970.	932.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13265.	11330.	5162.	2131.	255736.
CMS	376.	321.	146.	60.	7242.
INCHES		1.63	2.97	3.07	3.07
MM		41.40	75.44	77.86	77.86
AC-FT		5618.	10239.	10568.	10568.
THOUS CU M		6930.	12629.	13035.	13035.

```
*OVF*                                        STATION      I

                            INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.     2000.    4000.    6000.    8000.   10000.   12000.   14000.        0.     0.     0.     0.     0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
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15.30  31I
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16.30  33I
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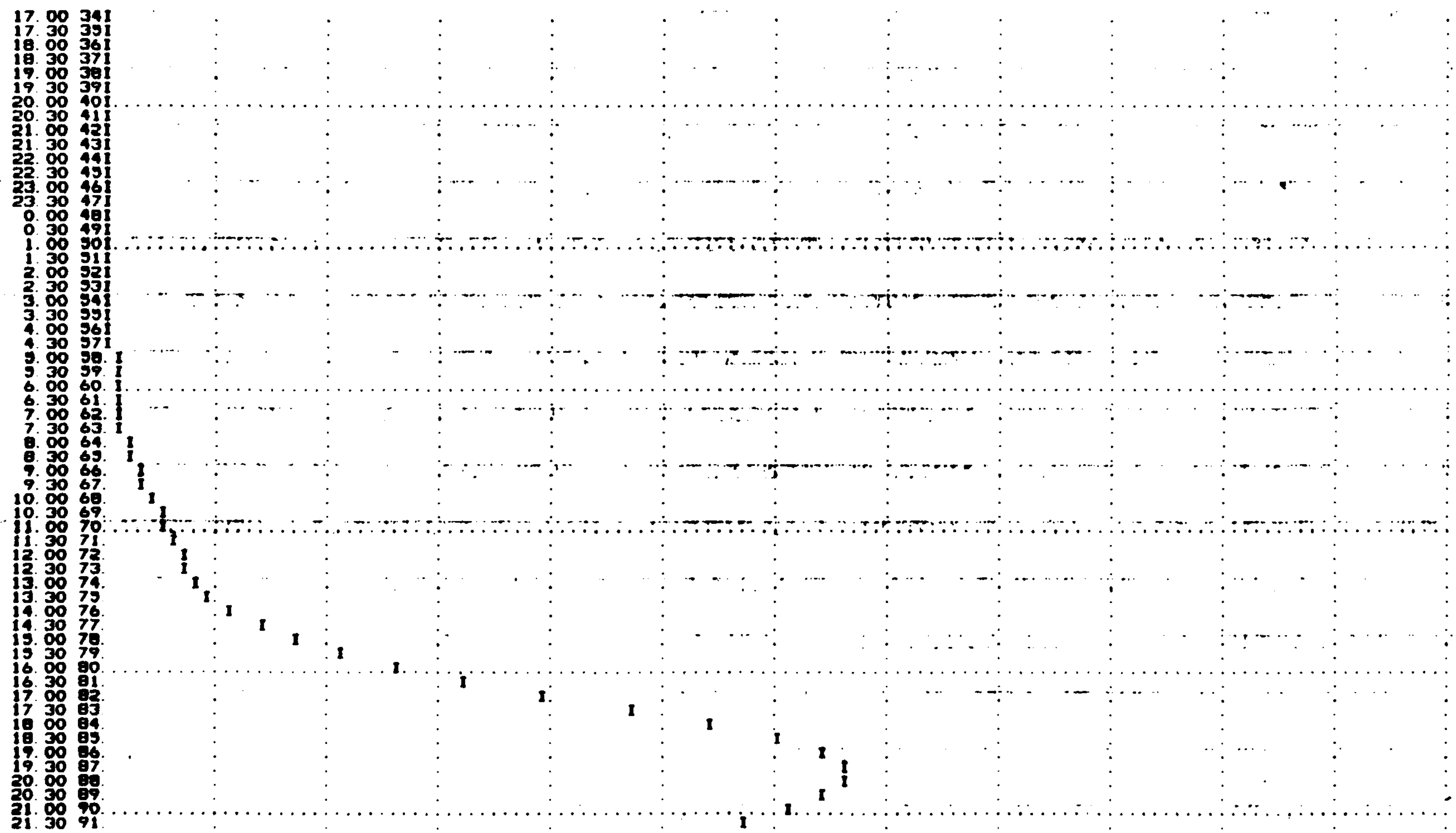
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22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
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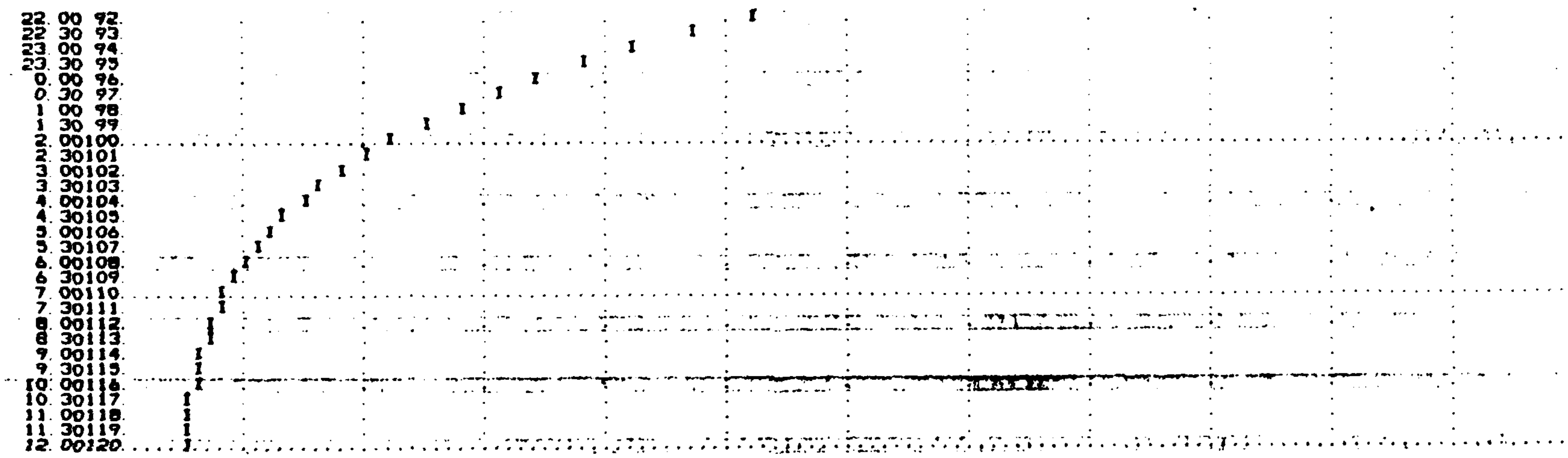
21.30 91



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

36.	35.	33.	32.	31.	30.	28.	27.	26.	25.
24.	24.	23.	22.	21.	20.	20.	19.	18.	18.
17.	17.	16.	16.	15.	15.	15.	15.	15.	15.
15.	15.	16.	17.	18.	19.	19.	20.	20.	20.
19.	18.	17.	16.	15.	14.	13.	12.	12.	15.
21.	31.	45.	62.	82.	104.	126.	147.	167.	185.
209.	254.	329.	436.	578.	730.	943.	1148.	1354.	1552.
1736.	1903.	2087.	2346.	2725.	3258.	3972.	4880.	5979.	7437.
9328.	11448.	13612.	15667.	17408.	18631.	19235.	19223.	18664.	17671.
16420.	15061.	13667.	12322.	11084.	9967.	8962.	8062.	7254.	6523.
5860.	5269.	4742.	4261.	3823.	3427.	3104.	2835.	2591.	2370.
2201.	2070.	1948.	1834.	1729.	1630.	1538.	1465.	1407.	1351.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19235.	16429.	7485.	3090.	370817.
CMS	545.	465.	212.	88.	10500.
INCHES		2.36	4.31	4.44	4.44
MM		60.02	109.39	112.90	112.90
AC-FT		8146.	14846.	15323.	15323.
THOUS CU M		10048.	18312.	18901.	18901.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
             0.    2000.    4000.    6000.    8000.    10000.    12000.    14000.    16000.    18000.    20000.    0.    0.
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 1.00    2I
 1.30    3I
 2.00    4I
 2.30    5I
 3.00    6I
 3.30    7I
 4.00    8I
 4.30    9I
 5.00   10I
 5.30   11I
 6.00   12I
 6.30   13I
 7.00   14I
 7.30   15I
 8.00   16I
 8.30   17I
 9.00   18I
 9.30   19I
10.00   20I
10.30   21I
11.00   22I
11.30   23I
12.00   24I
12.30   25I
13.00   26I
13.30   27I
14.00   28I
14.30   29I
15.00   30I
15.30   31I
16.00   32I
16.30   33I
17.00   34I
17.30   35I
18.00   36I
18.30   37I
19.00   38I
19.30   39I
20.00   40I
20.30   41I
21.00   42I
21.30   43I
22.00   44I
22.30   45I
23.00   46I
23.30   47I
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 1.00   50I
 1.30   51I
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 2.30   53I
 3.00   54I
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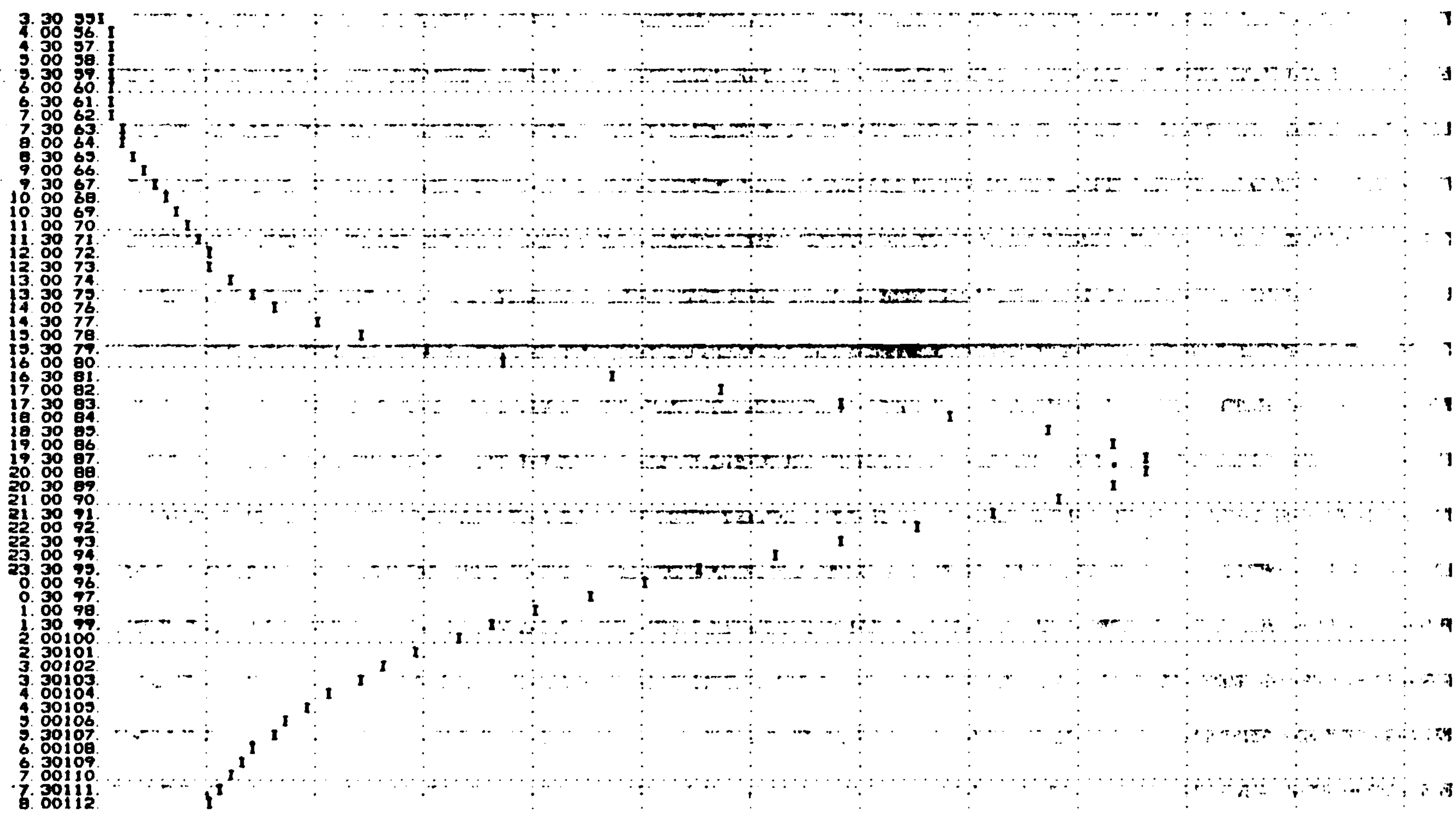
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9.00 66.
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10.00 68.
10.30 69.
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11.30 71.
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14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
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18.30 85.
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19.30 87.
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20.30 89.
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21.30 91.
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23.30 95.
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0.30 97.
1.00 98.
1.30 99.
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2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.

FLAHERTY GIAVARA ASSOCIATES, P.C.

```
 8.30113.        I
 9.00114.       I
 9.30115.       I
10.00116.      I
10.30117.      I
11.00118.     I
11.30119.     I
12.00120.     I
```

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

37.	36.	34.	33.	32.	31.	29.	28.	27.	26.
25.	24.	23.	23.	22.	21.	20.	20.	19.	19.
18.	17.	17.	16.	16.	16.	15.	15.	15.	15.
15.	16.	17.	17.	18.	19.	20.	20.	20.	20.
20.	19.	18.	17.	16.	14.	13.	13.	13.	15.
22.	32.	46.	65.	89.	108.	130.	152.	173.	191.
216.	263.	340.	451.	598.	775.	976.	1188.	1401.	1606.
1796.	1968.	2157.	2427.	2819.	3370.	4109.	5049.	6185.	7693.
9650.	11843.	14081.	16207.	18008.	19273.	19898.	19886.	19308.	18280.
16987.	15580.	14138.	12747.	11467.	10310.	9272.	8340.	7504.	6748.
6062.	5451.	4906.	4408.	3955.	3545.	3211.	2933.	2681.	2432.
2277.	2141.	2015.	1898.	1788.	1687.	1592.	1515.	1455.	1397.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	19898.	16995.	7743.	3197.	383603.
CMS	563.	481.	219.	91.	10862.
INCHES		2.44	4.46	4.60	4.60
MM		62.09	113.16	116.79	116.79
AC-FT		8427.	15358.	15851.	15851.
THOUS CU M		10395.	18944.	19552.	19552.

DVF

STATION 1

```
                       INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    2000.    4000.    6000.    8000.   10000.   12000.   14000.   16000.   18000.   20000.     0.     0.
 0.30  11
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 1.30  31
 2.00  41
 2.30  51
 3.00  61
 3.30  71
 4.00  81
 4.30  91
 5.00 101
 5.30 111
 6.00 121
 6.30 131
 7.00 141
 7.30 151
 8.00 161
 8.30 171
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10.30 21I
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11.30 23I
12.00 24I
12.30 25I
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13.30 27I
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15.00 30I
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
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20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
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 0.30 49I
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 2.30 53I
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 3.30 55I
 4.00 56. I
 4.30 57. I
 5.00 58. I
 5.30 59. I
 6.00 60. I
 6.30 61. I
 7.00 62. I
 7.30 63.  I
 8.00 64.  I
 8.30 65.   I
 9.00 66.    I
 9.30 67.     I
10.00 68.      I
10.30 69.       I
11.00 70.        I
11.30 71.         I
12.00 72.          I
12.30 73.           I
13.00 74.            I
13.30 75.             I
```

```
14.00  76.
14.30  77.
15.00  78.
15.30  79.
16.00  80.
16.30  81.
17.00  82.
17.30  83.
18.00  84.
18.30  85.
19.00  86.
19.30  87.
20.00  88.
20.30  89.
21.00  90.
21.30  91.
22.00  92.
22.30  93.
23.00  94.
23.30  95.
 0.00  96.
 0.30  97.
 1.00  98.
 1.30  99.
 2.00 100.
 2.30 101.
 3.00 102.
 3.30 103.
 4.00 104.
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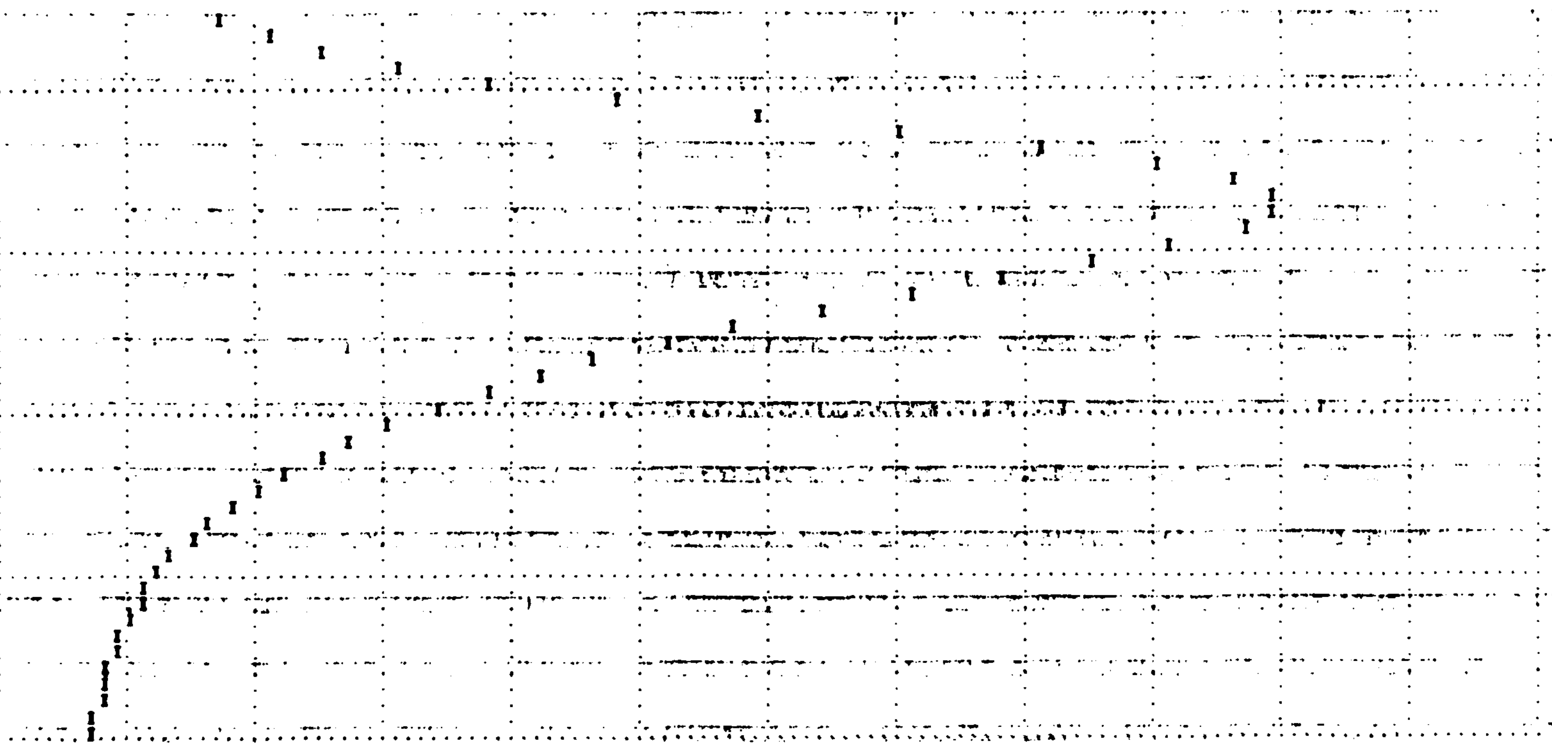

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

39.	37.	36.	34.	33.	32.	30.	29.	28.	27.
26.	25.	24.	23.	23.	22.	21.	20.	20.	19.
19.	18.	18.	17.	17.	16.	16.	16.	16.	16.
16.	16.	17.	18.	19.	20.	21.	21.	21.	21.
20.	19.	18.	17.	16.	15.	14.	13.	13.	16.
22.	33.	48.	67.	88.	111.	135.	157.	178.	198.

224.	272.	351.	466.	618.	801.	1008.	1227.	1447.	1659.
1856.	2034.	2231.	2508.	2913.	3483.	4246.	5217.	6391.	7950.
9971.	12238.	14551.	16747.	18608.	19915.	20561.	20549.	19932.	18890.
17553.	16099.	14609.	13172.	11849.	10654.	9581.	8618.	7754.	6973.
6264.	5633.	5069.	4555.	4087.	3664.	3318.	3031.	2770.	2534.
2353.	2213.	2082.	1961.	1848.	1743.	1645.	1566.	1504.	1444.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20561.	17562.	8001.	3303.	396390.
CMS	582.	497.	227.	94.	11225.
INCHES		2.53	4.60	4.75	4.75
MM		64.16	116.93	120.69	120.69
AC-FT		8708.	15870.	16380.	16380.
THOUS CU M		10741.	19575.	20204.	20204.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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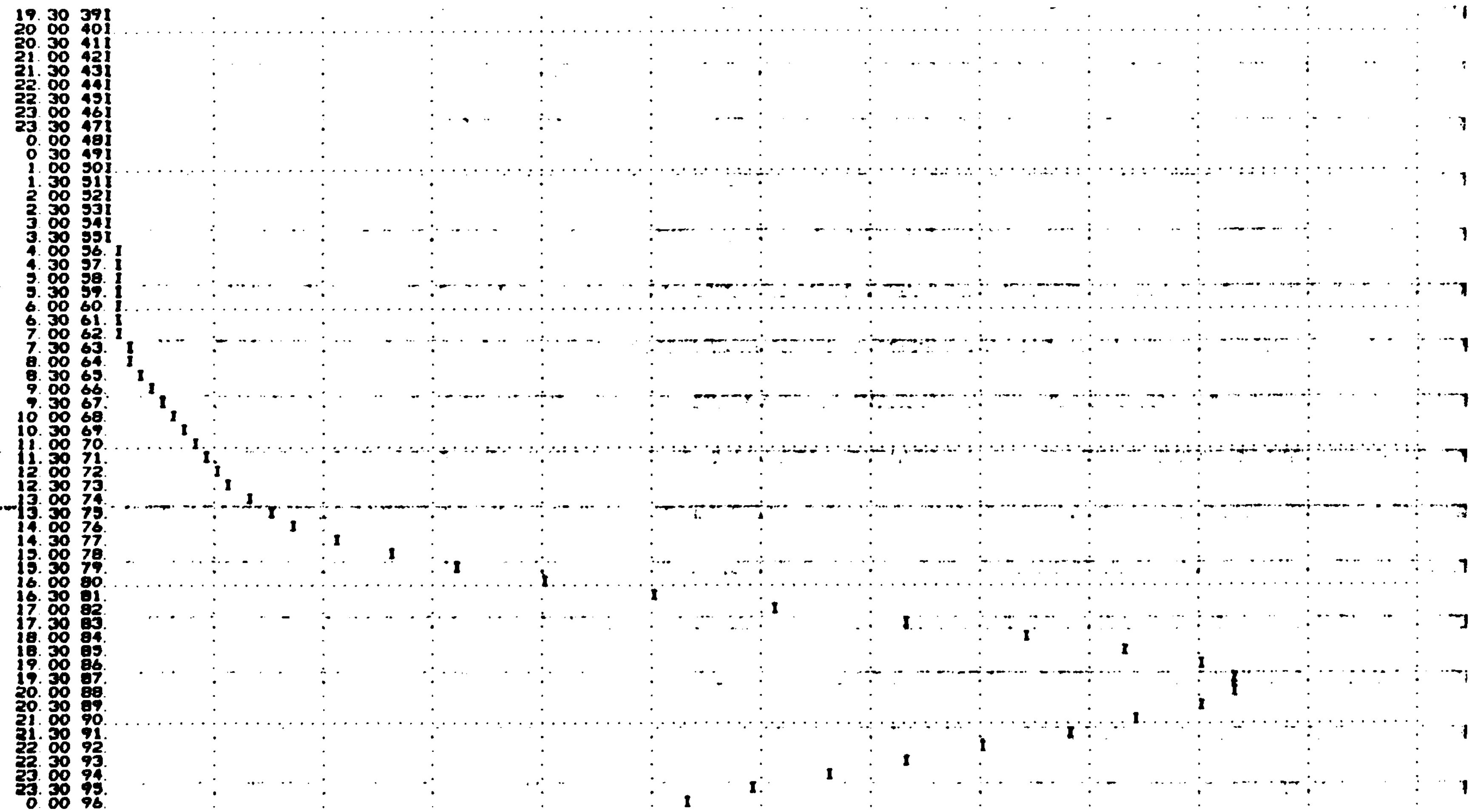
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23.00 94.
23.30 95.
0.00 96.

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10.00116.        I
10.30117.       I
11.00118.       I
11.30119.       I
12.00120.      I
```

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

40.	38.	37.	35.	34.	33.	31.	30.	29.	28.
27.	26.	25.	24.	23.	22.	22.	21.	20.	20.
19.	19.	18.	18.	17.	17.	16.	16.	16.	16.
16.	17.	18.	19.	20.	20.	21.	22.	22.	22.
21.	20.	19.	18.	17.	15.	14.	13.	13.	16.
23.	34.	50.	67.	91.	115.	137.	162.	184.	204.
231.	281.	362.	481.	638.	827.	1041.	1267.	1494.	1713.
1915.	2100.	2303.	2589.	3007.	3595.	4383.	5385.	6597.	8206.
10293.	12632.	15020.	17287.	19209.	20558.	21225.	21211.	20595.	19499.
18117.	16619.	15081.	13597.	12231.	10998.	9870.	8896.	8004.	7178.
6466.	5814.	5233.	4702.	4219.	3782.	3425.	3129.	2859.	2616.
2429.	2284.	2149.	2024.	1908.	1799.	1698.	1616.	1552.	1490.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	21225.	18128.	8259.	3410.	409177.
CMS	601.	513.	234.	97.	11587.
INCHES		2.61	4.75	4.90	4.90
MM		66.23	120.70	124.58	124.58
AC-FT		8989.	16382.	16908.	16908.
THOUS CU M		11088.	20207.	20856.	20856.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
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 0.30  II
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10.30	21
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12.30	25
13.00	26
13.30	27
14.00	28
14.30	29
15.00	30
15.30	31
16.00	32
16.30	33
17.00	34
17.30	35
18.00	36
18.30	37
19.00	38
19.30	39
20.00	40
20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50
1.30	51
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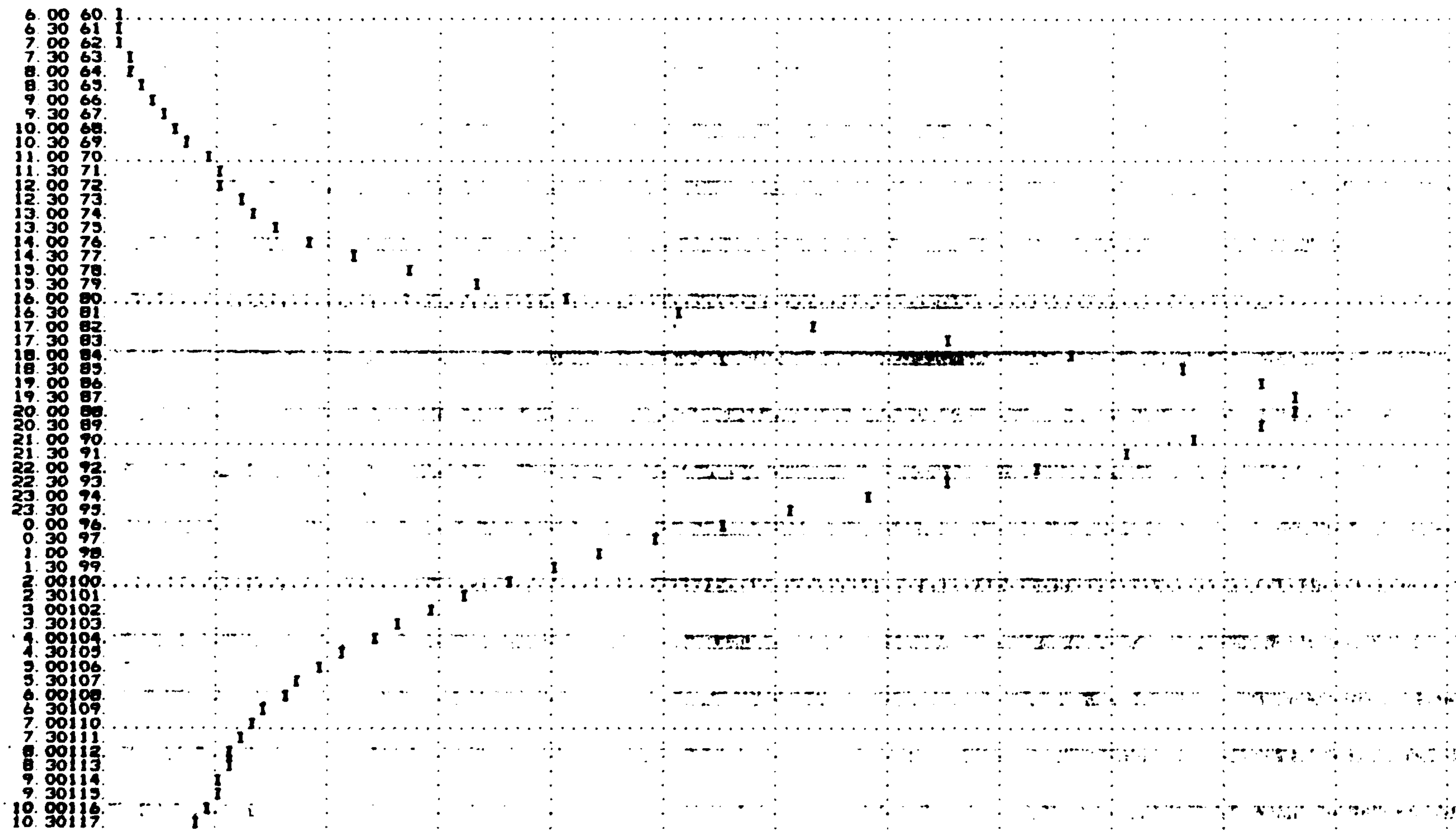
5.30	59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6.30109.
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7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.

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 11.00118.      I
 11.30119.      I
 12.00120.     I.................................................................................

*DVN*

                                   SUM OF 2 HYDROGRAPHS AT       1  PLAN 1  RTIO 6
            41.        39.        38.        36.        35.        34.        32.        31.        30.        29.
            28.        27.        26.        25.        24.        23.        22.        22.        21.        20.
            20.        19.        19.        18.        18.        17.        17.        17.        17.        17.
            17.        17.        18.        19.        20.        21.        22.        22.        23.        22.
            22.        21.        20.        18.        17.        16.        15.        14.        14.        17.
            24.        35.        51.        71.        94.       118.       143.       167.       190.       210.
           238.       289.       374.       496.       657.       893.      1073.      1306.      1541.      1766.
          1975.      2165.      2375.      2670.      3101.      3708.      4520.      5553.      6804.      8463.
         10615.     13027.     15490.     17828.     19809.     21200.     21888.     21874.     21239.     20108.
         18685.     17138.     15552.     14021.     12613.     11341.     10199.      9174.      8254.      7423.
          6668.      8976.      5376.      4849.      4351.      3900.      3532.      3226.      2749.      2697.
          2505.      2355.      2217.      2088.      1967.      1855.      1751.      1667.      1601.      1537.

                                  PEAK     6-HOUR     24-HOUR     72-HOUR    TOTAL VOLUME
                        CFS      21888.    18695.       8517.       3516.        421764.
                        CMS        620.      529.        241.        100.         11949.
                     INCHES                  2.69        4.90        5.06          5.06
                         MM                 68.30      124.48      128.47        128.47
                      AC-FT                  9270.     16874.      17437.         17437.
                THOUS CU M                 11434.      20838.      21508.         21508.

*DVF*                                   STATION     I

                            INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
             0.     2000.      4000.      6000.      8000.     10000.     12000.     14000.     16000.     18000.     20000.     22000.        0.
   0.30   1I
   1.00   2I
   1.30   3I
   2.00   4I
   2.30   5I
   3.00   6I
   3.30   7I
   4.00   8I
   4.30   9I
   5.00  10I.............................................................................................
   5.30  11I
   6.00  12I
   6.30  13I
   7.00  14I
   7.30  15I
   8.00  16I
   8.30  17I
   9.00  18I
   9.30  19I
  10.00  20I.............................................................................................
  10.30  21I
  11.00  22I
```

11.30	23
12.00	24
12.30	25
13.00	26
13.30	27
14.00	28
14.30	29
15.00	30
15.30	31
16.00	32
16.30	33
17.00	34
17.30	35
18.00	36
18.30	37
19.00	38
19.30	39
20.00	40
20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50
1.30	51
2.00	52
2.30	53
3.00	54
3.30	55
4.00	56.
4.30	57.
5.00	58.
5.30	59.
6.00	60.
6.30	61.
7.00	62.
7.30	63.
8.00	64.
8.30	65.
9.00	66.
9.30	67.
10.00	68.
10.30	69.
11.00	70.
11.30	71.
12.00	72.
12.30	73.
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13.30	75.
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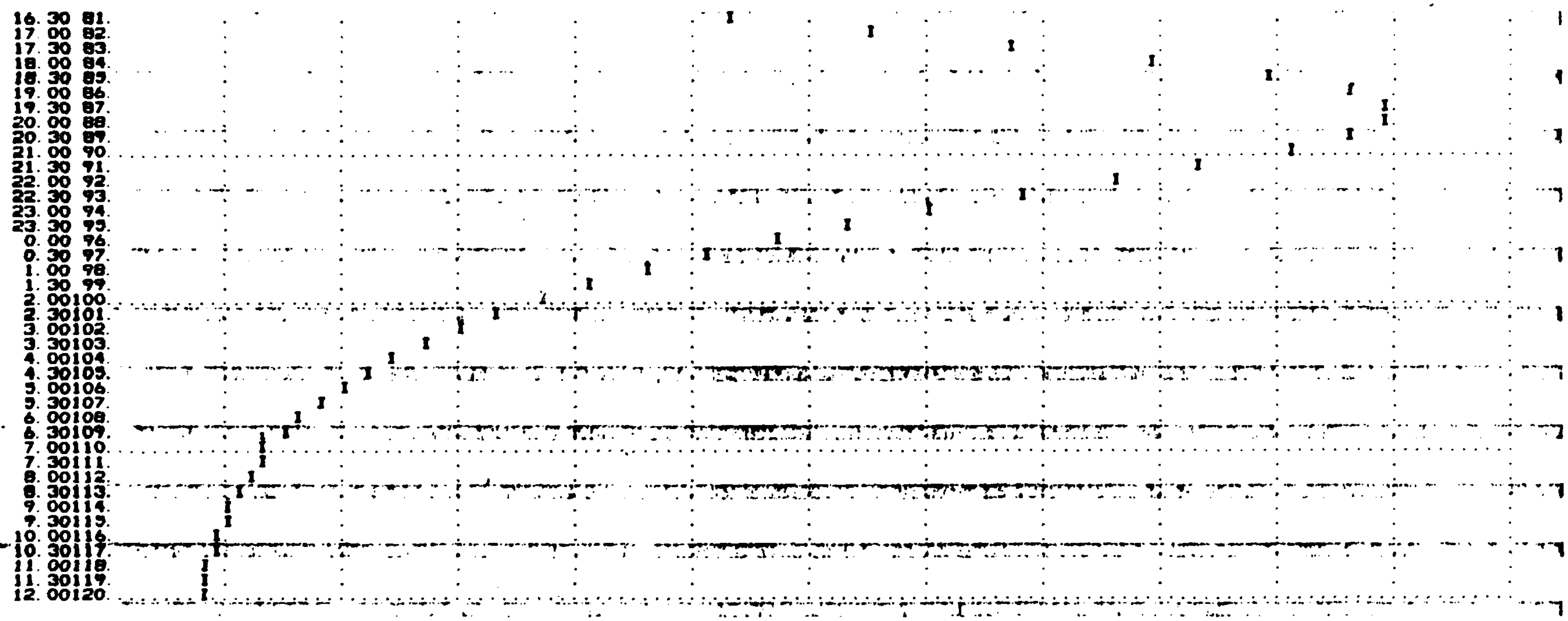
15.30	79.
16.00	80.



DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

42.	41.	39.	37.	36.	35.	33.	32.	31.	30.
29.	28.	27.	26.	25.	24.	23.	22.	22.	21.
20.	20.	19.	19.	18.	18.	17.	17.	17.	17.
17.	18.	19.	20.	21.	22.	23.	23.	23.	23.
22.	21.	20.	19.	18.	16.	15.	14.	14.	17.
25.	36.	53.	73.	97.	122.	148.	172.	196.	217.
245.	298.	385.	511.	677.	879.	1106.	1346.	1587.	1820.
2035.	2231.	2447.	2751.	3195.	3820.	4657.	5722.	7010.	8719.
10936.	13422.	15959.	18368.	20409.	21843.	22551.	22537.	21882.	20718.
19251.	17657.	16023.	14446.	12995.	11685.	10508.	9458.	8504.	7648.
6870.	6178.	5560.	4996.	4482.	4018.	3639.	3324.	3038.	2779.

```
 2581.    2427.    2284.    2151.    2027.    1911.    1804.    1717.    1649.    1584.

                     PEAK    6-HOUR   24-HOUR   72-HOUR   TOTAL VOLUME
           CFS      22551.   19261.    8775.     3623.      434751.
           CMS        639.     545.     248.      103.       12311.
        INCHES                 2.77     5.05      5.21         5.21
            MM                70.37   128.25    132.37       132.37
         AC-FT                 9551.   17406.    17965.       17965.
    THOUS CU M                11781.   21470.    22159.       22159.
```

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.    4000.    8000.   12000.   16000.   20000.   24000.    0.    0.    0.    0.    0.    0.
 0.30  11I
 1.00  21I
 1.30  31I
 2.00  41I
 2.30  51I
 3.00  61I
 3.30  71I
 4.00  81I
 4.30  91I
 5.00 101I
 5.30 111I
 6.00 121I
 6.30 131I
 7.00 141I
 7.30 151I
 8.00 161I
 8.30 171I
 9.00 181I
 9.30 191I
10.00 201I
10.30 211I
11.00 221I
11.30 231I
12.00 241I
12.30 251I
13.00 261I
13.30 271I
14.00 281I
14.30 291I
15.00 301I
15.30 311I
16.00 321I
16.30 331I
17.00 341I
17.30 351I
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21.30 431I
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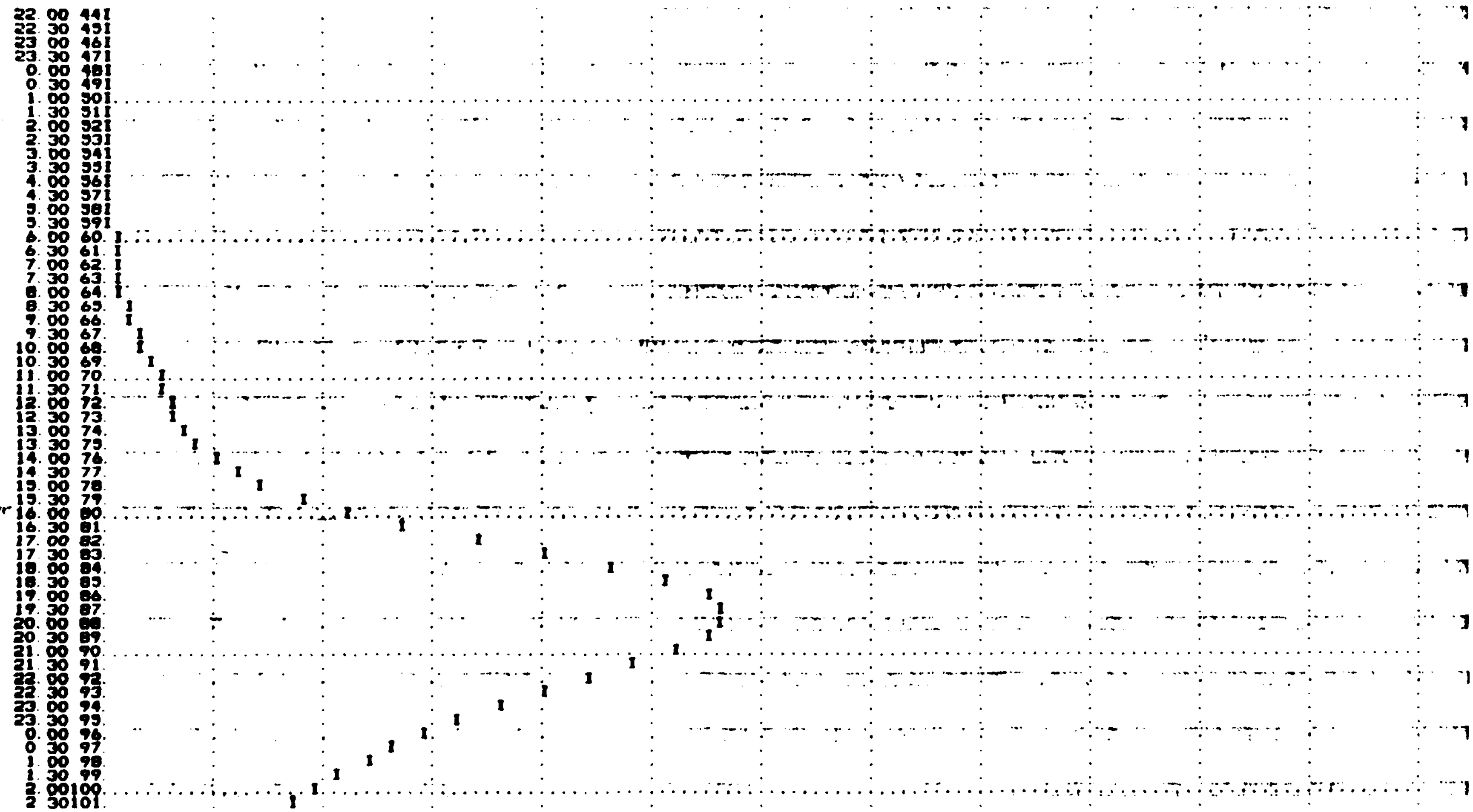
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4.30 57
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5.30 59
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6.30 61.
7.00 62.
7.30 63.
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9.30 67.
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10.30 69.
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11.30 71.
12.00 72.
12.30 73.
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15.30 79.
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17.00 82.
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20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
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2.30101.

```
 3.00102.                  I
 3.30103.                 I
 4.00104.                I
 4.30105.               I
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 5.30107.             I
 6.00108.            I
 6.30109.            I
 7.00110. .........I..........................................................
 7.30111.          I
 8.00112.          I
 8.30113.          I
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 9.30115.         I
10.00116.         I
10.30117.         I
11.00118.        I
11.30119.        I
12.00120. . . .  I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

62.	60.	57.	55.	53.	51.	49.	47.	45.	44.
42.	41.	39.	38.	36.	35.	34.	33.	32.	31.
30.	27.	28.	27.	27.	28.	26.	25.	25.	25.
26.	26.	28.	29.	31.	32.	33.	34.	34.	34.
33.	31.	30.	28.	26.	24.	22.	21.	21.	26.
36.	53.	77.	108.	142.	179.	217.	254.	288.	319.
361.	438.	566.	752.	996.	1292.	1626.	1979.	2334.	2676.
2993.	3281.	3598.	4045.	4699.	5617.	6849.	8414.	10309.	12822.
16083.	19738.	23467.	27012.	30014.	32122.	33164.	33143.	32180.	30467.
28311.	25966.	23563.	21245.	19111.	17184.	15453.	13900.	12506.	11247.
10103.	9085.	8178.	7347.	6592.	5907.	5352.	4888.	4468.	4087.
3795.	3569.	3359.	3163.	2981.	2811.	2653.	2526.	2425.	2329.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	33164.	28325.	12905.	9328.	639339.
CMS	939.	802.	365.	151.	18104.
INCHES		4.07	7.43	7.66	7.66
MM		103.49	188.60	194.66	194.66
AC-FT		14048.	25597.	26419.	26419.
THOUS CU M		17325.	31573.	32587.	32587.

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
      0.     4000.   8000.  12000.  16000.  20000.  24000.  28000.  32000.  36000.   0.   0.   0.
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1.00 2I
1.30 3I
2.00 4I
2.30 5I
3.00 6I
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 4.00  8I
 4.30  9I
 5.00 10I
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
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 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 32I
16.30 33I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
 0.00 48I
 0.30 49I
 1.00 50I
 1.30 51I
 2.00 52I
 2.30 53I
 3.00 54I
 3.30 55I
 4.00 56I
 4.30 57. I
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 8.00 64.  I
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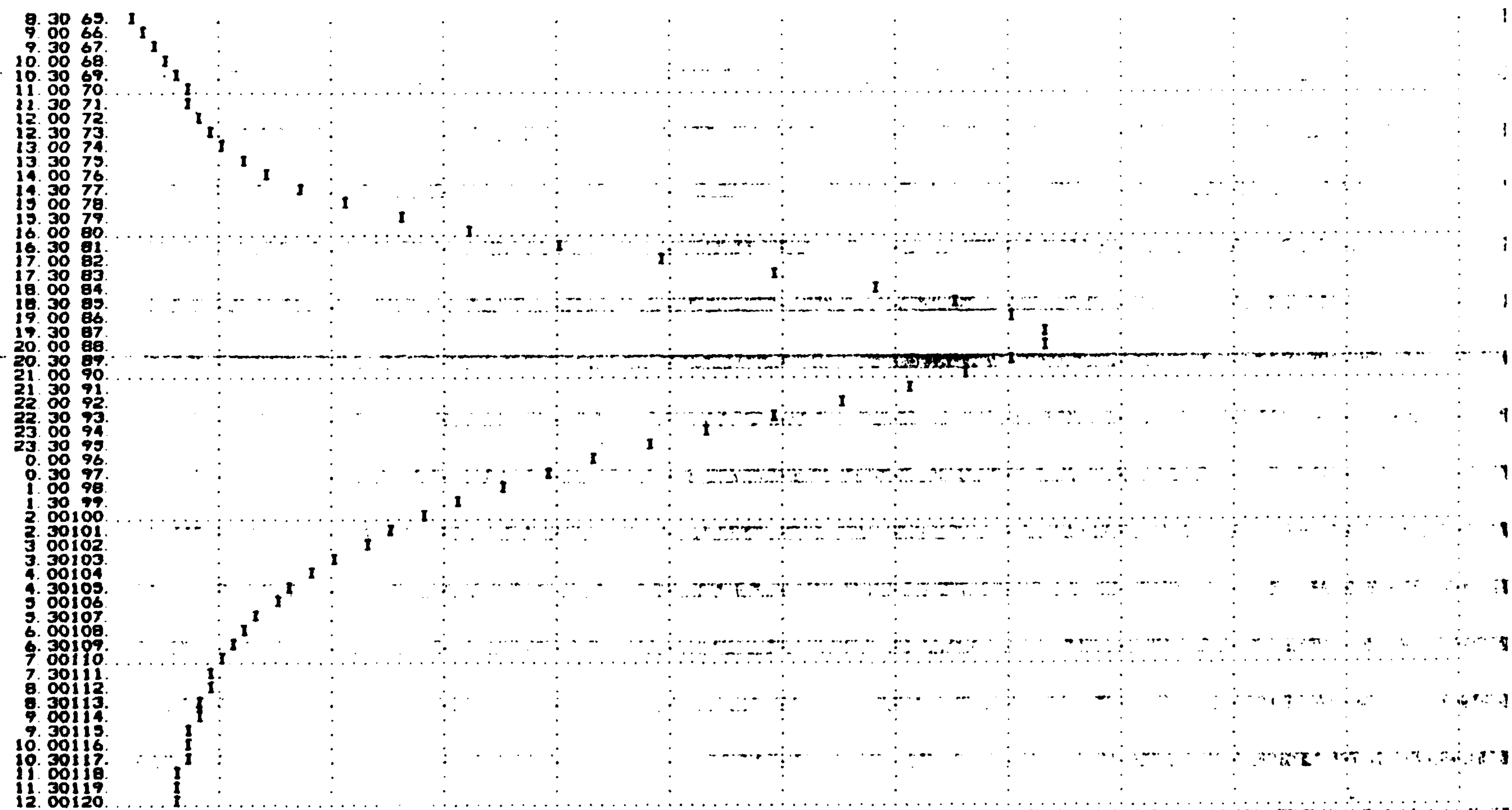
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23.00 94.
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3.00102.
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8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

124.	119.	115.	110.	106.	102.	98.	94.	91.	88.
84.	81.	78.	75.	73.	70.	68.	66.	64.	62.
60.	58.	57.	55.	53.	52.	51.	50.	50.	50.
51.	53.	55.	58.	61.	64.	66.	68.	68.	67.
65.	63.	59.	56.	52.	48.	45.	42.	42.	51.
72.	107.	155.	215.	284.	359.	434.	507.	575.	637.
721.	877.	1133.	1504.	1992.	2585.	3252.	3959.	4669.	5352.
5985.	6561.	7197.	8090.	9397.	11235.	13698.	16829.	20617.	25645.
32166.	39476.	46938.	54023.	60027.	64243.	66327.	66286.	64360.	60935.
56622.	51933.	47127.	42489.	38222.	34368.	30905.	27801.	25013.	22494.
20206.	18170.	16353.	14693.	13184.	11818.	10704.	9777.	8936.	8174.
7590.	7138.	6717.	6326.	5961.	5622.	5305.	5051.	4850.	4656.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	66327.	56650.	25810.	10656.	1278678.
CMS	1878.	1604.	731.	302.	36208.
INCHES		8.15	14.85	15.33	15.33
MM		206.98	377.20	389.32	389.32
AC-FT		28091.	51193.	52838.	52838.
THOUS CU M		34650.	63146.	65175.	65175.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

		0.	10000.	20000.	30000.	40000.	50000.	60000.	70000.	0.	0.	0.	0.	0.
0.30	1	I												
1.00	2	I												
1.30	3	I												
2.00	4	I												
2.30	5	I												
3.00	6	I												
3.30	7	I												
4.00	8	I												
4.30	9	I												
5.00	10	I												
5.30	11	I												
6.00	12	I												
6.30	13	I												
7.00	14	I												
7.30	15	I												
8.00	16	I												
8.30	17	I												
9.00	18	I												
9.30	19	I												
10.00	20	I												
10.30	21	I												
11.00	22	I												
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13.00	26	I												
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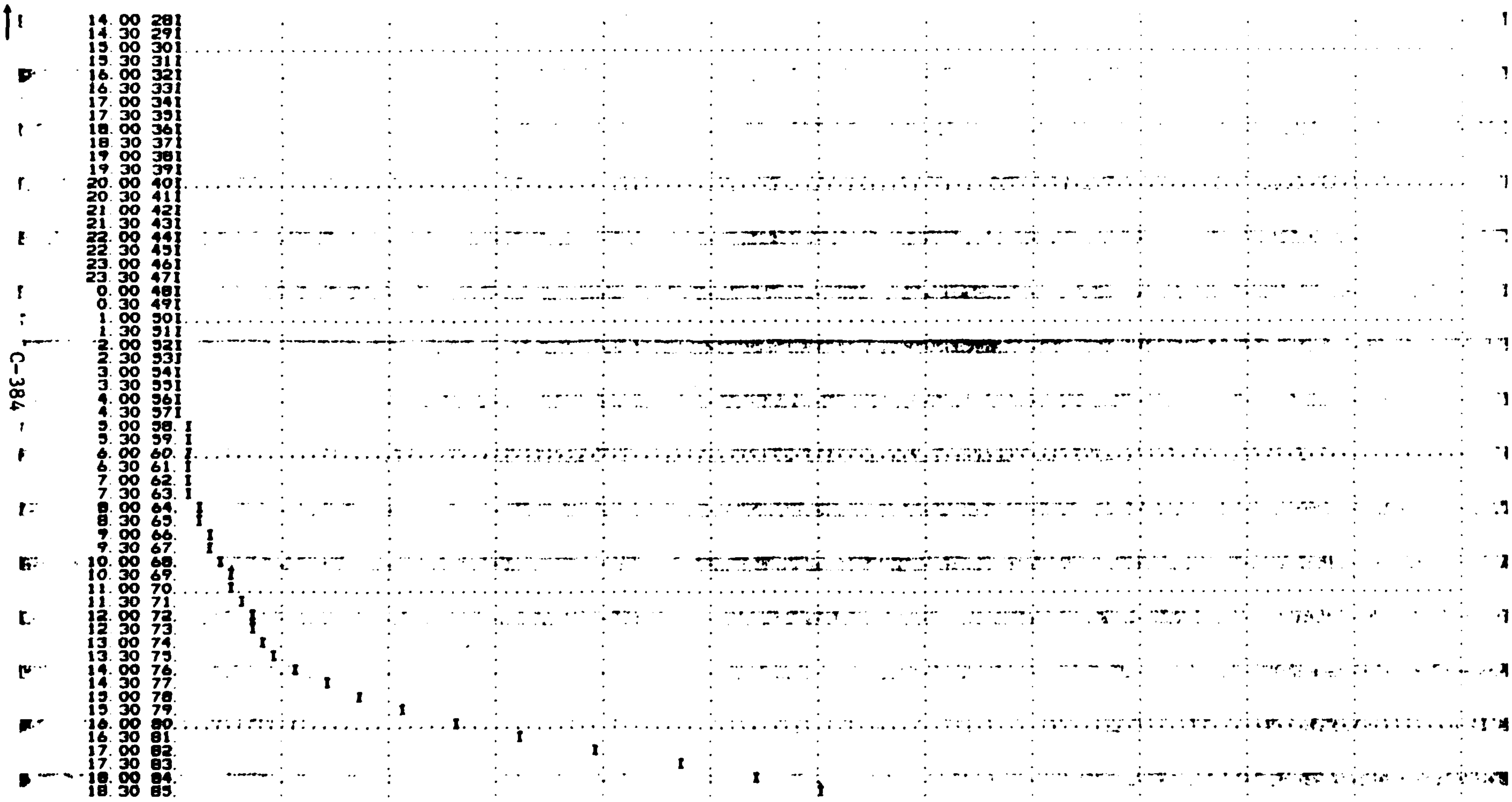
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21.30 43
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18.30 85

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19.00 86.                                                       I
19.30 87.                                                         I
20.00 88.                                                         I
20.30 89.                                                       I
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21.30 91.                                                 I
22.00 92.                                            I
22.30 93.
23.00 94.                                       I
23.30 95.                                   I
 0.00 96.                                I
 0.30 97.                             I
 1.00 98.                          I
 1.30 99.                       I
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11.30119.      I
12.00120. . . .I . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
```

DVN

********** ********** ********** ********** **********

SUB-AREA RUNOFF COMPUTATION

INFLOW HYDROGRAPH - SUBWATERSHED NO. 6

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	0	0	0	0	0	1	0	0

HYDROGRAPH DATA

IHYDG	IUHG	TAREA	SNAP	TRSDA	TRSPC	RATIO	ISNOW	ISAME	LOCAL
1	1	10.33	0.00	10.33	0.00	0.000	0	1	0

PRECIP DATA

SPFE	PMS	R6	R12	R24	R48	R72	R96
0.00	17.30	86.00	100.00	112.00	119.00	0.00	0.00

TRSPC COMPUTED BY THE PROGRAM IS 0.801

LOSS DATA

LROPT	STRKR	DLTKR	RTIOL	ERAIN	STRKS	RTIOK	STRTL	CNSTL	ALSMX	RTIMP
0	0.00	0.00	1.00	0.00	0.00	1.00	1.00	0.10	0.00	0.02

UNIT HYDROGRAPH DATA
TP= 3.00 CP=0.63 NTA= 0

RECESSION DATA
STRTQ= -2.00 QRCSN= -0.10 RTIOR= 1.50
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 6.86 AND R= 5.33 INTERVALS

UNIT HYDROGRAPH 32 END-OF-PERIOD ORDINATES, LAG= 2.99 HOURS, CP= 0.63 VOL= 1.00

90.	329.	650.	992.	1269.	1415.	1401.	1233.	1021.	846.
701.	580.	481.	398.	330.	273.	226.	187.	155.	129.
107.	88.	73.	61.	50.	42.	34.	29.	24.	20.
16.	13.								

0

END-OF-PERIOD FLOW

MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q	MO.DA	HR.MN	PERIOD	RAIN	EXCS	LOSS	COMP Q
1.01	0.30	1	0.00	0.00	0.00	20.	1.02	6.30	61	0.18	0.13	0.05	154.
1.01	1.00	2	0.00	0.00	0.00	19.	1.02	7.00	62	0.18	0.13	0.05	198.
1.01	1.30	3	0.00	0.00	0.00	18.	1.02	7.30	63	0.18	0.13	0.05	279.
1.01	2.00	4	0.00	0.00	0.00	18.	1.02	8.00	64	0.18	0.13	0.05	400.
1.01	2.30	5	0.00	0.00	0.00	17.	1.02	8.30	65	0.18	0.13	0.05	553.
1.01	3.00	6	0.00	0.00	0.00	17.	1.02	9.00	66	0.18	0.13	0.05	723.
1.01	3.30	7	0.00	0.00	0.00	16.	1.02	9.30	67	0.18	0.13	0.05	891.
1.01	4.00	8	0.00	0.00	0.00	16.	1.02	10.00	68	0.18	0.13	0.05	1039.
1.01	4.30	9	0.00	0.00	0.00	15.	1.02	10.30	69	0.18	0.13	0.05	1161.
1.01	5.00	10	0.00	0.00	0.00	14.	1.02	11.00	70	0.18	0.13	0.05	1263.
1.01	5.30	11	0.00	0.00	0.00	14.	1.02	11.30	71	0.18	0.13	0.05	1347.
1.01	6.00	12	0.00	0.00	0.00	14.	1.02	12.00	72	0.18	0.13	0.05	1416.
1.01	6.30	13	0.01	0.00	0.01	13.	1.02	12.30	73	0.66	0.62	0.05	1517.
1.01	7.00	14	0.01	0.00	0.01	13.	1.02	13.00	74	0.66	0.62	0.05	1724.
1.01	7.30	15	0.01	0.00	0.01	12.	1.02	13.30	75	0.80	0.75	0.05	2091.
1.01	8.00	16	0.01	0.00	0.01	12.	1.02	14.00	76	0.80	0.75	0.05	2648.
1.01	8.30	17	0.01	0.00	0.01	12.	1.02	14.30	77	1.00	0.95	0.05	3394.
1.01	9.00	18	0.01	0.00	0.01	12.	1.02	15.00	78	1.00	0.95	0.05	4299.
1.01	9.30	19	0.01	0.00	0.01	11.	1.02	15.30	79	1.21	1.16	0.05	5314.
1.01	10.00	20	0.01	0.00	0.01	11.	1.02	16.00	80	3.84	3.79	0.05	6620.
1.01	10.30	21	0.01	0.00	0.01	11.	1.02	16.30	81	0.93	0.88	0.05	8309.
1.01	11.00	22	0.01	0.00	0.01	11.	1.02	17.00	82	0.93	0.88	0.05	10139.
1.01	11.30	23	0.01	0.00	0.01	11.	1.02	17.30	83	0.73	0.68	0.05	11873.
1.01	12.00	24	0.01	0.00	0.01	10.	1.02	18.00	84	0.73	0.68	0.05	13207.
1.01	12.30	25	0.04	0.00	0.04	10.	1.02	18.30	85	0.09	0.04	0.05	13883.
1.01	13.00	26	0.04	0.00	0.04	10.	1.02	19.00	86	0.09	0.04	0.05	13749.
1.01	13.30	27	0.05	0.00	0.05	10.	1.02	19.30	87	0.09	0.04	0.05	12832.
1.01	14.00	28	0.05	0.00	0.05	11.	1.02	20.00	88	0.09	0.04	0.05	11500.
1.01	14.30	29	0.06	0.00	0.06	11.	1.02	20.30	89	0.09	0.04	0.05	10065.
1.01	15.00	30	0.06	0.00	0.06	12.	1.02	21.00	90	0.09	0.04	0.05	8629.
1.01	15.30	31	0.08	0.00	0.07	13.	1.02	21.30	91	0.09	0.04	0.05	7294.
1.01	16.00	32	0.24	0.00	0.24	15.	1.02	22.00	92	0.09	0.04	0.05	6142.
1.01	16.30	33	0.06	0.00	0.06	17.	1.02	22.30	93	0.09	0.04	0.05	5186.
1.01	17.00	34	0.06	0.00	0.06	19.	1.02	23.00	94	0.09	0.04	0.05	4395.
1.01	17.30	35	0.05	0.00	0.04	21.	1.02	23.30	95	0.09	0.04	0.05	3739.
1.01	18.00	36	0.05	0.00	0.04	22.	1.03	0.00	96	0.09	0.04	0.05	3196.
1.01	18.30	37	0.01	0.00	0.01	23.	1.03	0.30	97	0.00	0.00	0.00	2742.
1.01	19.00	38	0.01	0.00	0.01	22.	1.03	1.00	98	0.00	0.00	0.00	2355.

1.01	19.30	39	0.01	0.00	0.01	21.		1.03	1.30	99	0.00	0.00	0.00	2018.
1.01	20.00	40	0.01	0.00	0.01	19.		1.03	2.00	100	0.00	0.00	0.00	1719.
1.01	20.30	41	0.01	0.00	0.01	17.		1.03	2.30	101	0.00	0.00	0.00	1451.
1.01	21.00	42	0.01	0.00	0.01	15.		1.03	3.00	102	0.00	0.00	0.00	1348.
1.01	21.30	43	0.01	0.00	0.01	14.		1.03	3.30	103	0.00	0.00	0.00	1294.
1.01	22.00	44	0.01	0.00	0.01	12.		1.03	4.00	104	0.00	0.00	0.00	1243.
1.01	22.30	45	0.01	0.00	0.01	11.		1.03	4.30	105	0.00	0.00	0.00	1193.
1.01	23.00	46	0.01	0.00	0.01	10.		1.03	5.00	106	0.00	0.00	0.00	1146.
1.01	23.30	47	0.01	0.00	0.01	9.		1.03	5.30	107	0.00	0.00	0.00	1101.
1.02	0.00	48	0.01	0.00	0.01	8.		1.03	6.00	108	0.00	0.00	0.00	1057.
1.02	0.30	49	0.06	0.01	0.05	8.		1.03	6.30	109	0.00	0.00	0.00	1015.
1.02	1.00	50	0.06	0.01	0.05	12.		1.03	7.00	110	0.00	0.00	0.00	974.
1.02	1.30	51	0.06	0.01	0.05	20.		1.03	7.30	111	0.00	0.00	0.00	936.
1.02	2.00	52	0.06	0.01	0.05	32.		1.03	8.00	112	0.00	0.00	0.00	899.
1.02	2.30	53	0.06	0.01	0.05	48.		1.03	8.30	113	0.00	0.00	0.00	863.
1.02	3.00	54	0.06	0.01	0.05	65.		1.03	9.00	114	0.00	0.00	0.00	829.
1.02	3.30	55	0.06	0.01	0.05	83.		1.03	9.30	115	0.00	0.00	0.00	796.
1.02	4.00	56	0.06	0.01	0.05	98.		1.03	10.00	116	0.00	0.00	0.00	764.
1.02	4.30	57	0.06	0.01	0.05	111.		1.03	10.30	117	0.00	0.00	0.00	734.
1.02	5.00	58	0.06	0.01	0.05	122.		1.03	11.00	118	0.00	0.00	0.00	705.
1.02	5.30	59	0.06	0.01	0.05	130.		1.03	11.30	119	0.00	0.00	0.00	677.
1.02	6.00	60	0.06	0.01	0.05	138.		1.03	12.00	120	0.00	0.00	0.00	650.
										SUM	18.40	14.99	3.41	211234.
											(467.)(	381.)(	87.)(	5981.47)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13883.	10655.	4229.	1757.	210897.
CMS	393.	302.	120.	50.	5972.
INCHES		9.60	15.23	15.83	15.83
MM		243.72	386.93	401.99	401.99
AC-FT		5284.	8388.	8715.	8715.
THOUS CU M		6517.	10347.	10749.	10749.

OVF

STATION 1

```
                       (INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.     2000.    4000.    6000.    8000.    10000.    12000.    14000.       0.       0.        0.       0.       0.
                                                                                            PRECIP(L) AND EXCESS(X)
          0.      0.       0.       0.       0.       0.        0.        0.        4.       3.        2.       1.       0.
 0.30  1I                                                                                                              L
 1.00  2I                                                                                                              L
 1.30  3I                                                                                                              L
 2.00  4I                                                                                                              L
 2.30  5I                                                                                                              L
 3.00  6I                                                                                                              L
 3.30  7I                                                                                                              L
 4.00  8I                                                                                                              L
 4.30  9I                                                                                                              L
 5.00 10I                                                                                                              L
 5.30 11I                                                                                                              L
 6.00 12I                                                                                                              L
 6.30 13I                                                                                                              L
 7.00 14I                                                                                                              L
 7.30 15I                                                                                                              L
 8.00 16I                                                                                                              L
 8.30 17I                                                                                                              L
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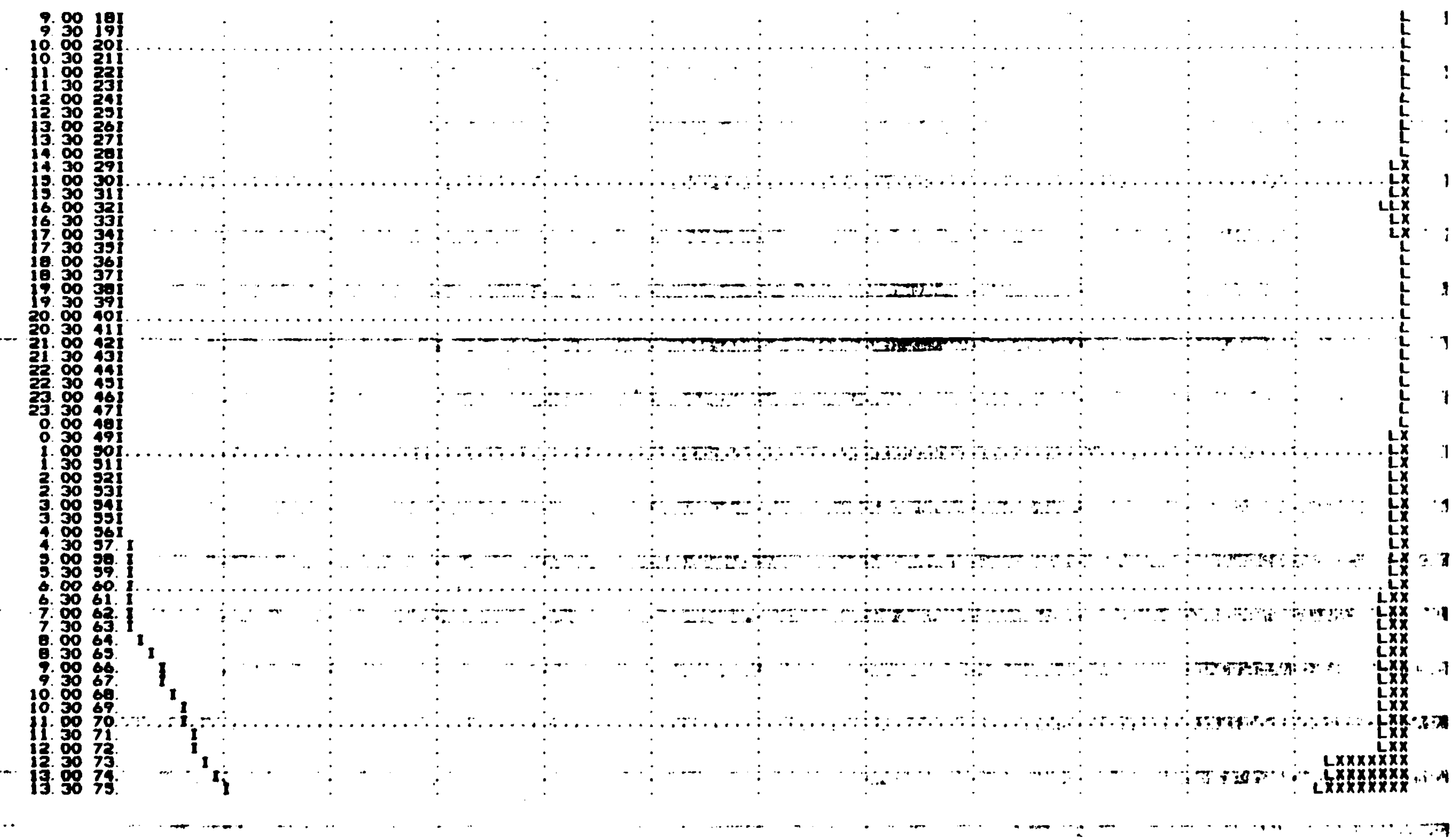

14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
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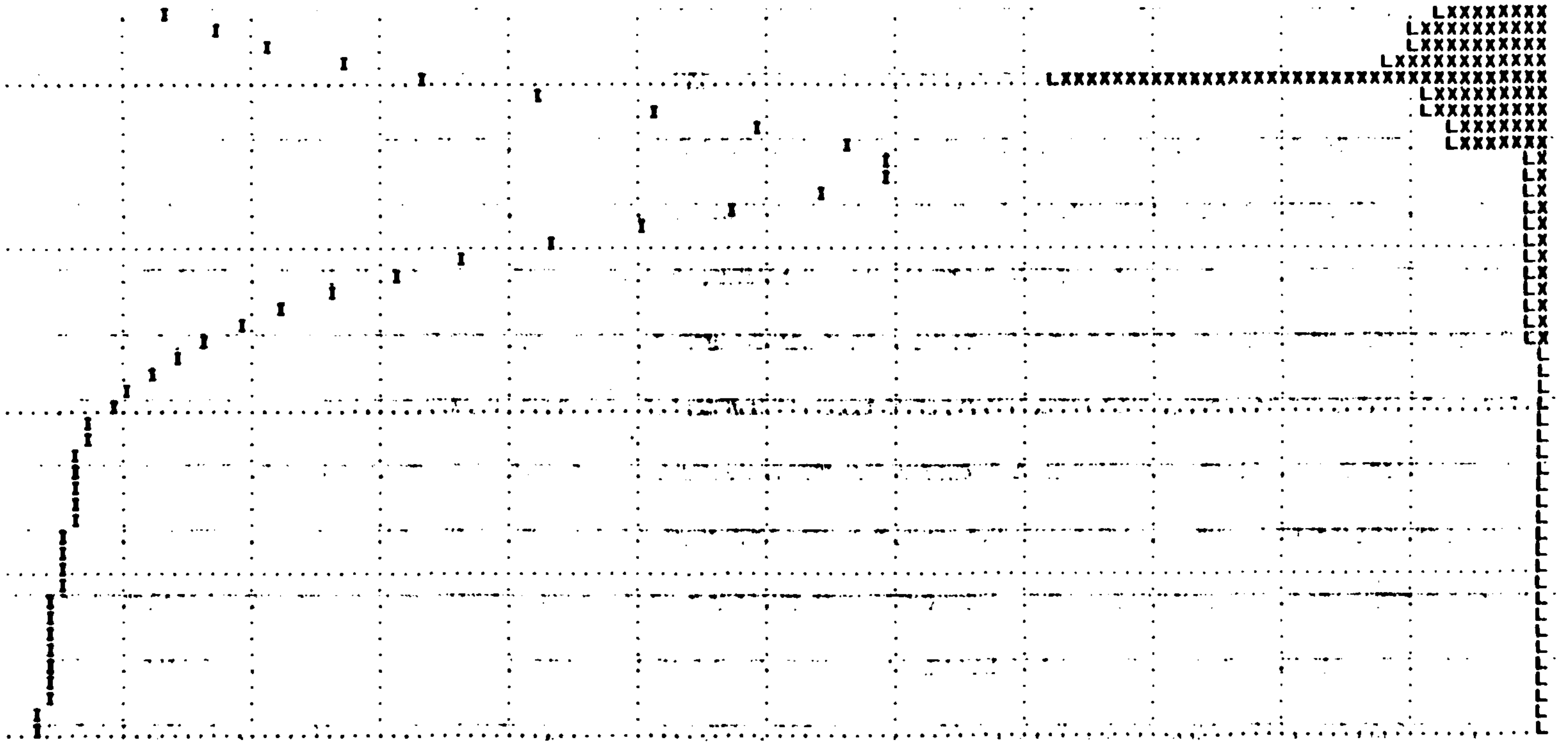


OVN

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

4.	4.	4.	4.	3.	3.	3.	3.	3.	3.
3.	3.	3.	3.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
3.	3.	3.	4.	4.	4.	3.	4.	4.	4.
3.	3.	3.	2.	2.	2.	2.	2.	2.	2.
4.	6.	10.	13.	17.	20.	22.	24.	26.	28.
31.	40.	56.	80.	111.	145.	178.	208.	232.	253.

269.	283.	303.	345.	418.	530.	679.	860.	1063.	1324.
1662.	2028.	2375.	2641.	2777.	2750.	2566.	2300.	2013.	1726.
1459.	1228.	1037.	879.	748.	639.	548.	471.	404.	344.
290.	270.	259.	249.	239.	229.	220.	211.	203.	195.
187.	180.	173.	166.	159.	153.	147.	141.	135.	130.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	2777.	2131.	846.	351.	42179.
CMS	79.	60.	24.	10.	1194.
INCHES		1.92	3.05	3.17	3.17
MM		48.74	77.39	80.40	80.40
AC-FT		1057.	1678.	1743.	1743.
THOUS CU M		1303.	2069.	2150.	2150.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

6.	6.	5.	5.	5.	5.	5.	4.	4.	4.
4.	4.	4.	4.	4.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	4.
4.	4.	5.	5.	6.	6.	7.	7.	6.	6.
5.	4.	4.	3.	3.	3.	2.	2.	2.	3.
6.	9.	14.	19.	24.	29.	32.	35.	38.	40.
45.	57.	81.	116.	160.	210.	259.	301.	337.	366.
391.	411.	440.	500.	606.	768.	984.	1247.	1541.	1920.
2410.	2740.	3443.	3830.	4026.	3987.	3781.	[illegible]	2719.	2502.
2115.	1781.	1504.	1275.	1084.	927.	795.	683.	585.	498.
421.	391.	375.	360.	346.	332.	319.	306.	294.	283.
271.	261.	250.	240.	231.	222.	213.	204.	196.	188.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4026.	3090.	1226.	510.	61160.
CMS	114.	87.	35.	14.	1732.
INCHES		2.78	4.42	4.59	4.59
MM		70.68	112.21	116.58	116.58
AC-FT		1532.	2433.	2527.	2527.
THOUS CU M		1890.	3001.	3117.	3117.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

6.	6.	6.	5.	5.	5.	5.	5.	4.	4.
4.	4.	4.	4.	4.	4.	4.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	4.
4.	4.	5.	6.	6.	7.	7.	7.	6.	6.
5.	5.	4.	4.	3.	3.	3.	2.	2.	4.
6.	10.	14.	20.	25.	29.	33.	37.	39.	41.
46.	59.	84.	120.	166.	217.	267.	312.	348.	379.
404.	425.	455.	517.	627.	794.	1018.	1290.	1594.	1986.
2493.	3042.	3562.	3962.	4165.	4125.	3850.	3450.	3019.	2589.
2188.	1843.	1556.	1318.	1122.	959.	823.	707.	805.	516.
435.	404.	388.	373.	358.	344.	330.	317.	304.	292.
281.	270.	259.	249.	239.	229.	220.	211.	203.	195.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4165.	3197.	1269.	527.	63269.
CMS	118.	91.	36.	15.	1792.
INCHES		2.88	4.57	4.75	4.75
MM		73.11	116.08	120.60	120.60
AC-FT		1585.	2516.	2614.	2614.

THOUS CU M	1955.	3104.	3225.	3225.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

6.	6.	6.	5.	5.	5.	5.	5.	5.	4.
4.	4.	4.	4.	4.	4.	4.	4.	4.	3.
3.	3.	3.	3.	3.	3.	3.	3.	4.	4.
4.	5.	5.	6.	6.	7.	7.	7.	7.	6.
5.	5.	4.	4.	3.	3.	3.	2.	3.	4.
6.	10.	15.	20.	26.	30.	34.	38.	40.	43.
48.	61.	87.	124.	172.	224.	276.	322.	360.	391.
417.	439.	470.	535.	648.	821.	1052.	1333.	1647.	2052.
2576.	3143.	3681.	4094.	4304.	4262.	3978.	3565.	3120.	2675.
2261.	1904.	1608.	1362.	1159.	991.	850.	730.	626.	533.
450.	418.	401.	385.	370.	355.	341.	328.	315.	302.
290.	279.	267.	257.	247.	237.	227.	218.	210.	201.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4304.	3303.	1311.	545.	65378.
CMS	122.	94.	37.	15.	1851.
INCHES		2.97	4.72	4.71	4.71
MM		75.55	119.95	124.62	124.62
AC-FT		1638.	2600.	2702.	2702.
THOUS CU M		2020.	3208.	3332.	3332.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

6.	6.	6.	6.	5.	5.	5.	5.	5.	5.
4.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	3.	3.	3.	3.	3.	3.	3.	4.	4.
4.	5.	5.	6.	7.	7.	7.	7.	7.	6.
6.	5.	4.	4.	3.	3.	3.	2.	3.	4.
6.	10.	15.	21.	27.	31.	36.	39.	42.	44.
49.	63.	89.	128.	177.	232.	285.	333.	372.	404.
431.	453.	486.	552.	669.	847.	1086.	1376.	1700.	2118.
2659.	3245.	3799.	4226.	4443.	4400.	4106.	3680.	3221.	2761.
2334.	1965.	1660.	1406.	1197.	1023.	877.	754.	646.	550.
464.	431.	414.	398.	382.	367.	352.	338.	325.	312.
299.	288.	276.	265.	255.	244.	235.	225.	216.	208.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4443.	3410.	1353.	562.	67487.
CMS	126.	97.	38.	16.	1911.
INCHES		3.07	4.87	5.06	5.06
MM		77.99	123.82	128.64	128.64
AC-FT		1691.	2684.	2789.	2789.
THOUS CU M		2085.	3311.	3440.	3440.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

7.	6.	6.	6.	6.	5.	5.	5.	5.	5.
5.	4.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	3.	3.	3.	3.	4.	4.	4.
4.	5.	5.	6.	7.	7.	8.	7.	7.	6.
6.	5.	4.	4.	4.	3.	3.	3.	3.	4.
6.	10.	16.	22.	27.	32.	37.	40.	43.	43.
31.	65.	92.	132.	183.	239.	294.	343.	383.	417.
444.	467.	501.	569.	690.	874.	1120.	1419.	1754.	2184.

2742.	3346.	3918.	4358.	4582.	4537.	4235.	3795.	3321.	2848.
2407.	2027.	1712.	1450.	1234.	1055.	905.	777.	666.	567.
479.	445.	427.	410.	394.	378.	363.	349.	335.	322.
309.	297.	285.	273.	263.	252.	242.	232.	223.	214.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4582.	3516.	1396.	580.	69596.
CMS	130.	100.	40.	16.	1971.
INCHES		3.17	5.03	5.22	5.22
MM		80.43	127.69	132.66	132.66
AC-FT		1744.	2768.	2876.	2876.
THOUS CU M		2151.	3414.	3547.	3547.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

7.	6.	6.	6.	6.	6.	5.	5.	5.	5.
5.	5.	4.	4.	4.	4.	4.	4.	4.	4.
4.	4.	4.	4.	3.	3.	4.	4.	4.	4.
5.	5.	6.	6.	7.	8.	8.	8.	7.	7.
6.	5.	5.	4.	4.	3.	3.	3.	3.	4.
7.	11.	16.	22.	28.	33.	38.	41.	44.	47.
32.	67.	95.	136.	188.	246.	303.	353.	395.	429.
458.	482.	516.	586.	711.	900.	1154.	1462.	1807.	2251.
2825.	3447.	4037.	4491.	4720.	4675.	4363.	3910.	3422.	2934.
2480.	2088.	1763.	1494.	1271.	1087.	932.	801.	686.	584.
493.	458.	440.	423.	406.	390.	374.	359.	345.	331.
318.	306.	293.	282.	271.	260.	249.	240.	230.	221.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4720.	3623.	1438.	598.	71705.
CMS	134.	103.	41.	17.	2030.
INCHES		3.26	5.18	5.38	5.38
MM		82.86	131.56	136.68	136.68
AC-FT		1796.	2852.	2963.	2963.
THOUS CU M		2216.	3518.	3655.	3655.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

10.	10.	9.	9.	9.	8.	8.	8.	7.	7.
7.	7.	7.	6.	6.	6.	6.	6.	6.	6.
6.	5.	5.	5.	5.	5.	5.	5.	6.	6.
7.	7.	8.	9.	10.	11.	11.	11.	11.	10.
9.	8.	7.	6.	5.	5.	4.	4.	4.	6.
10.	16.	24.	33.	41.	49.	56.	61.	65.	69.
77.	99.	140.	200.	277.	362.	446.	520.	581.	631.
673.	708.	759.	862.	1045.	1324.	1697.	2150.	2657.	3310.
4154.	5070.	5936.	6604.	6942.	6875.	6416.	5750.	5032.	4315.
3647.	3071.	2593.	2197.	1870.	1598.	1371.	1178.	1009.	859.
726.	674.	647.	621.	597.	573.	550.	528.	507.	487.
468.	449.	431.	414.	398.	382.	367.	352.	338.	325.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6942.	5328.	2115.	879.	105449.
CMS	197.	151.	60.	25.	2986.
INCHES		4.80	7.62	7.91	7.91
MM		121.86	193.46	200.99	200.99
AC-FT		2642.	4194.	4357.	4357.
THOUS CU M		3259.	5173.	5375.	5375.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

20.	19.	18.	18.	17.	17.	16.	16.	15.	14.
14.	14.	13.	13.	12.	12.	12.	12.	11.	11.
11.	11.	11.	10.	10.	10.	10.	11.	11.	12.
13.	15.	17.	19.	21.	22.	23.	22.	21.	19.
17.	15.	14.	12.	11.	10.	9.	8.	8.	12.
20.	32.	48.	65.	83.	98.	111.	122.	130.	138.
154.	198.	279.	400.	553.	723.	891.	1039.	1161.	1263.
1347.	1416.	1517.	1724.	2091.	2648.	3394.	4299.	5314.	6620.
8309.	10139.	11873.	13207.	13883.	13749.	12832.	11500.	10065.	8629.
7294.	6142.	5186.	4395.	3739.	3176.	2742.	2355.	2018.	1719.
1451.	1348.	1294.	1243.	1193.	1146.	1101.	1057.	1015.	974.
936.	899.	863.	829.	796.	764.	734.	705.	677.	650.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	13883.	10655.	4229.	1757.	210897.
CMS	393.	302.	120.	50.	5972.
INCHES		9.60	15.23	15.83	15.83
MM		243.72	386.73	401.99	401.99
AC-FT		5284.	8388.	8715.	8715.
THOUS CU M		6517.	10347.	10749.	10749.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

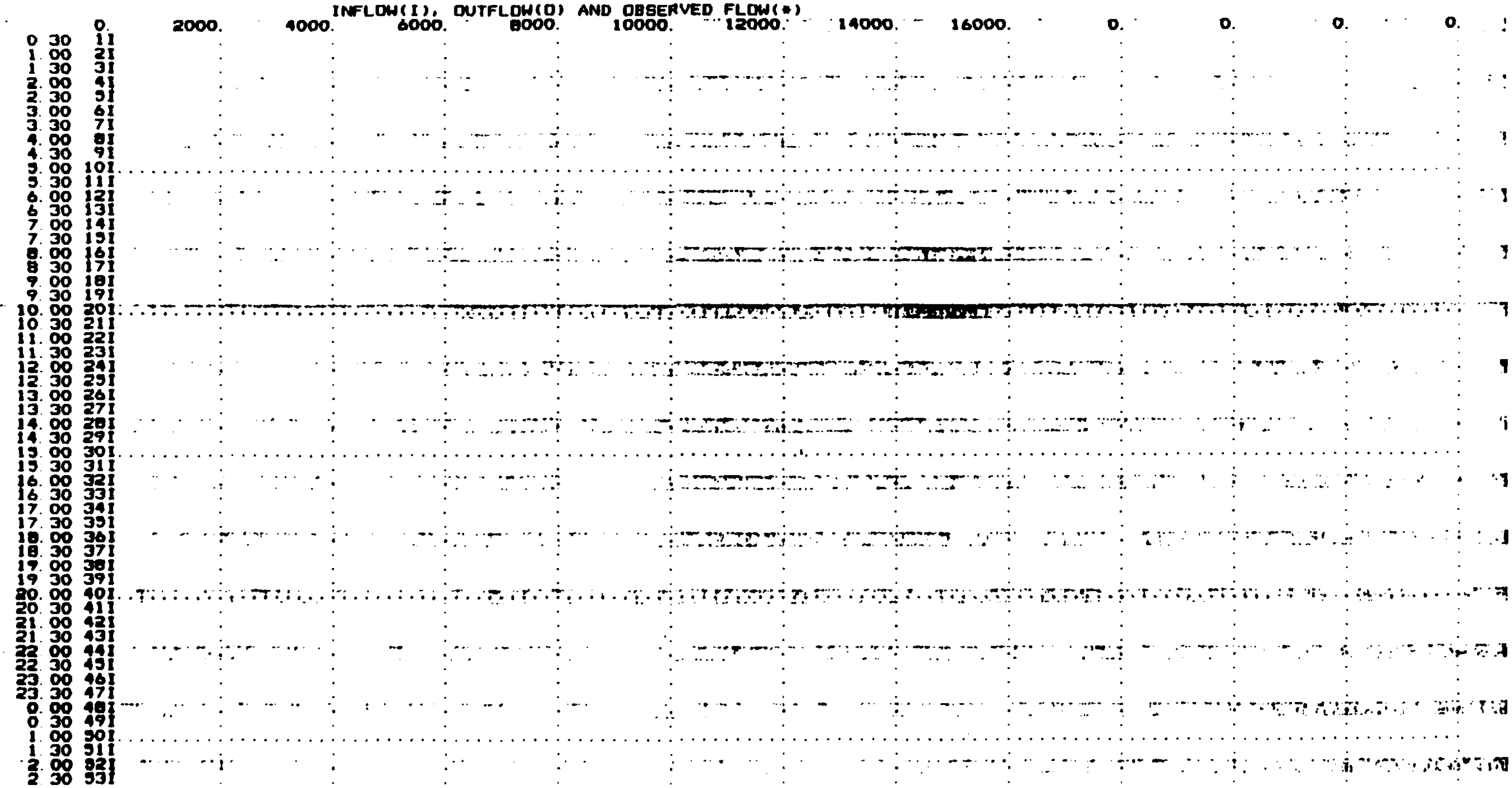
29.	28.	27.	26.	25.	24.	23.	22.	21.	20.
20.	19.	18.	18.	17.	16.	16.	15.	15.	15.
14.	14.	13.	13.	13.	12.	12.	12.	12.	13.
13.	13.	14.	15.	16.	17.	18.	18.	18.	17.
17.	16.	15.	14.	12.	12.	11.	10.	10.	13.
18.	28.	40.	56.	73.	91.	109.	126.	141.	155.
175.	215.	282.	381.	509.	662.	829.	1000.	1166.	1323.
1466.	1596.	1743.	1963.	2298.	2777.	3418.	4226.	5186.	6453.
8095.	9923.	11762.	13446.	14782.	15599.	15832.	15557.	14885.	13913.
12783.	11615.	10463.	9377.	8392.	7513.	6729.	6031.	5406.	4843.
4332.	3903.	3529.	3187.	2875.	2593.	2361.	2167.	1990.	1830.
1705.	1607.	1516.	1431.	1351.	1277.	1208.	1151.	1105.	1061.

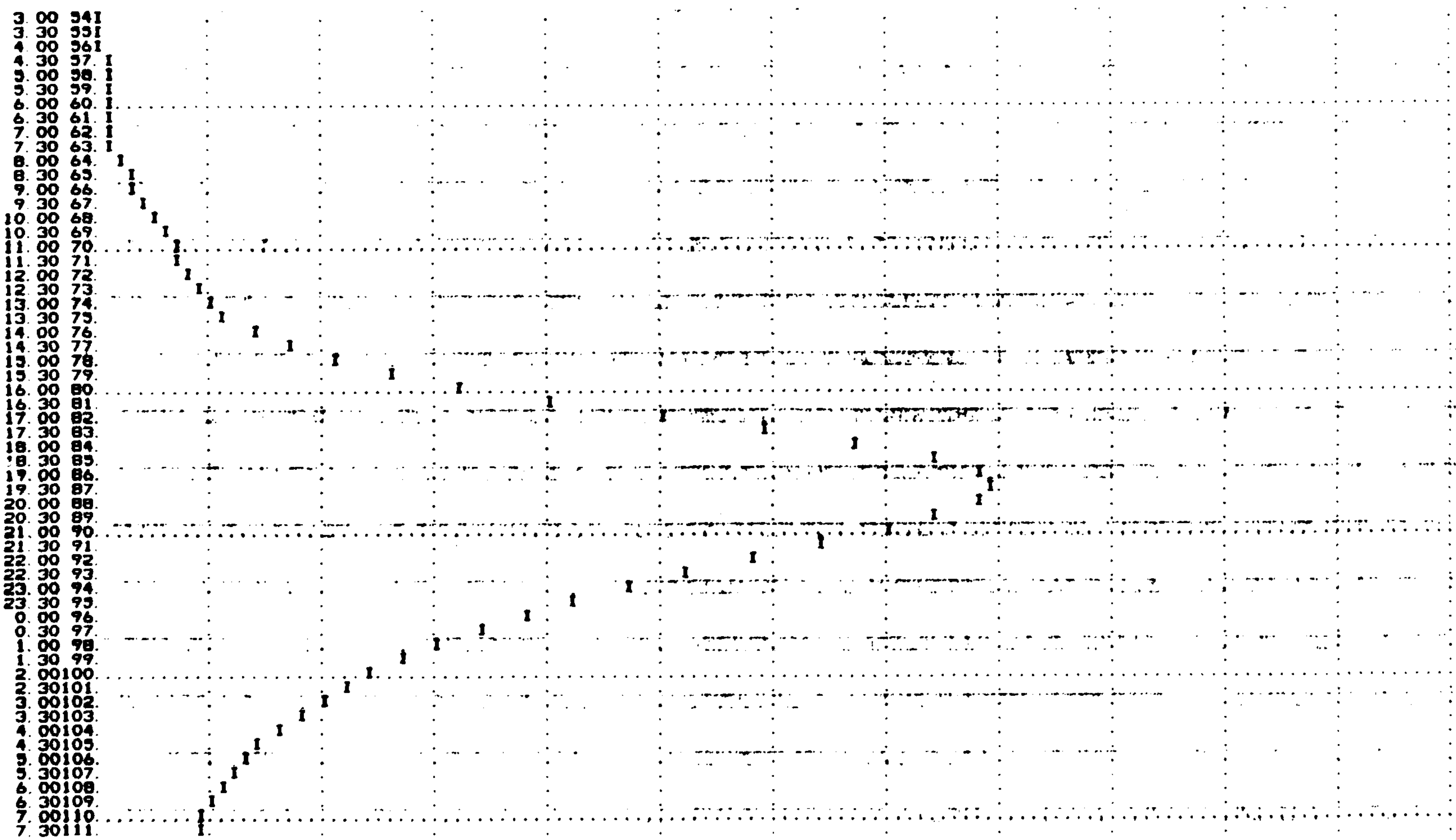
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	15832.	13357.	6005.	2483.	297915.
CMS	448.	378.	170.	70.	8436.
INCHES		1.66	2.98	3.08	3.08
MM		42.08	75.67	78.21	78.21
AC-FT		6623.	11910.	12311.	12311.
THOUS CU M		8170.	14691.	15185.	15185.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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6.30109.
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7.30111.

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 8.30113.        I
 9.00114.       I
 9.30115.       I
10.00116.      I
10.30117.      I
11.00118.      I
11.30119.      I
12.00120.     I
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

42.	40.	39.	37.	36.	34.	33.	32.	31.	30.
29.	27.	26.	26.	25.	24.	23.	22.	22.	21.
21.	20.	19.	19.	18.	18.	18.	18.	18.	18.
19.	20.	21.	22.	24.	25.	26.	26.	26.	25.
24.	23.	21.	20.	18.	17.	16.	14.	15.	18.
27.	40.	59.	81.	107.	133.	158.	182.	205.	225.
254.	312.	410.	552.	738.	959.	1202.	1449.	1691.	1918.
2126.	2313.	2527.	2846.	3332.	4026.	4956.	6127.	7520.	9357.
11738.	14387.	17095.	19497.	21434.	22818.	22958.	[illegible]	21583.	20174.
18536.	16842.	15171.	13596.	12169.	10894.	9758.	8745.	7839.	7022.
6281.	5660.	5118.	4622.	4169.	3760.	3423.	3142.	2886.	2653.
2473.	2331.	2198.	2075.	1960.	1852.	1751.	1669.	1603.	1539.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	22956.	19368.	8707.	3600.	431977.
CMS	650.	548.	247.	102.	12232.
INCHES		2.40	4.32	4.46	4.46
MM		61.02	109.72	113.41	113.41
AC-FT		9604.	17270.	17850.	17850.
THOUS CU M		11846.	21302.	22018.	22018.

OVF

STATION 1

```
                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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1.00   2I
1.30   3I
2.00   4I
2.30   5I
3.00   6I
3.30   7I
4.00   8I
4.30   9I
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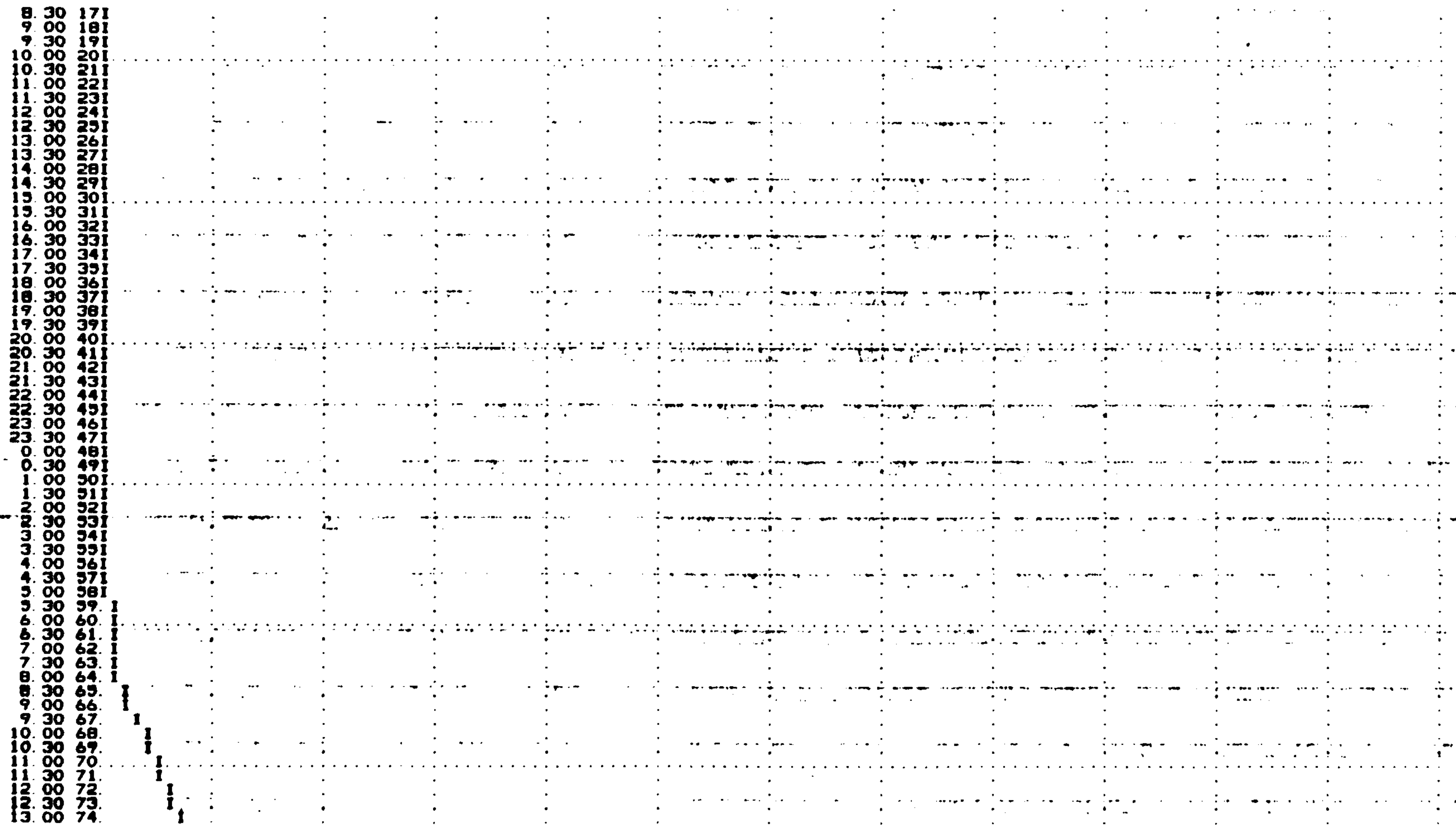
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22.30 45I
23.00 46I
23.30 47I
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1.30 51I
2.00 52I
2.30 53I
3.00 54I
3.30 55I
4.00 56I
4.30 57I
5.00 58I
5.30 59. I
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6.30 61. I
7.00 62. I
7.30 63. I
8.00 64. I
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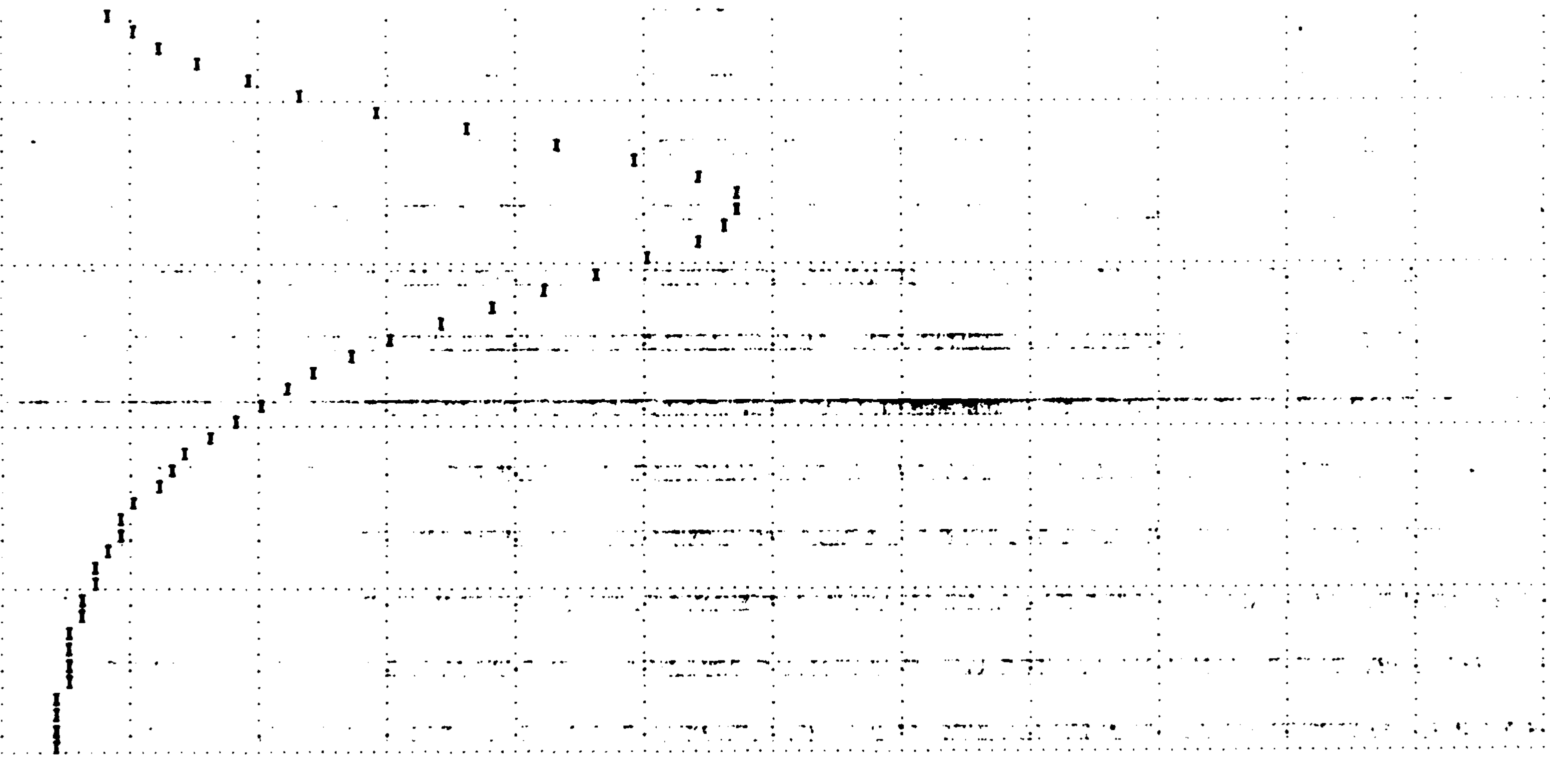

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10.00 116.
10.30 117.
11.00 118.
11.30 119.
12.00 120.
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

43.	42.	40.	38.	37.	36.	34.	33.	32.	31.
29.	28.	27.	26.	26.	25.	24.	23.	23.	22.
21.	21.	20.	20.	19.	19.	18.	18.	18.	19.
19.	20.	21.	23.	25.	26.	27.	27.	27.	26.
25.	23.	22.	20.	19.	17.	16.	15.	15.	19.

28.	42.	61.	84.	110.	137.	164.	189.	212.	232.
263.	323.	424.	571.	764.	992.	1243.	1499.	1749.	1984.
2200.	2393.	2614.	2944.	3446.	4165.	5127.	6338.	7779.	9679.
12142.	14885.	17643.	20169.	22173.	23398.	23748.	23336.	22327.	20869.
19175.	17422.	15694.	14065.	12588.	11269.	10094.	9047.	8109.	7264.
6497.	5855.	5294.	4781.	4313.	3889.	3541.	3250.	2985.	2745.
2558.	2411.	2274.	2146.	2027.	1916.	1812.	1727.	1658.	1592.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	23748.	20036.	9007.	3724.	446873.
CMS	672.	567.	255.	105.	12654.
INCHES		2.49	4.47	4.62	4.62
MM		63.12	113.51	117.32	117.32
AC-FT		9935.	17866.	18466.	18466.
THOUS CU M		12255.	22037.	22777.	22777.

OVF

STATION 1

```
                  INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I.........................................................................................
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 6.00  12I
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 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I.........................................................................................
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11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I.........................................................................................
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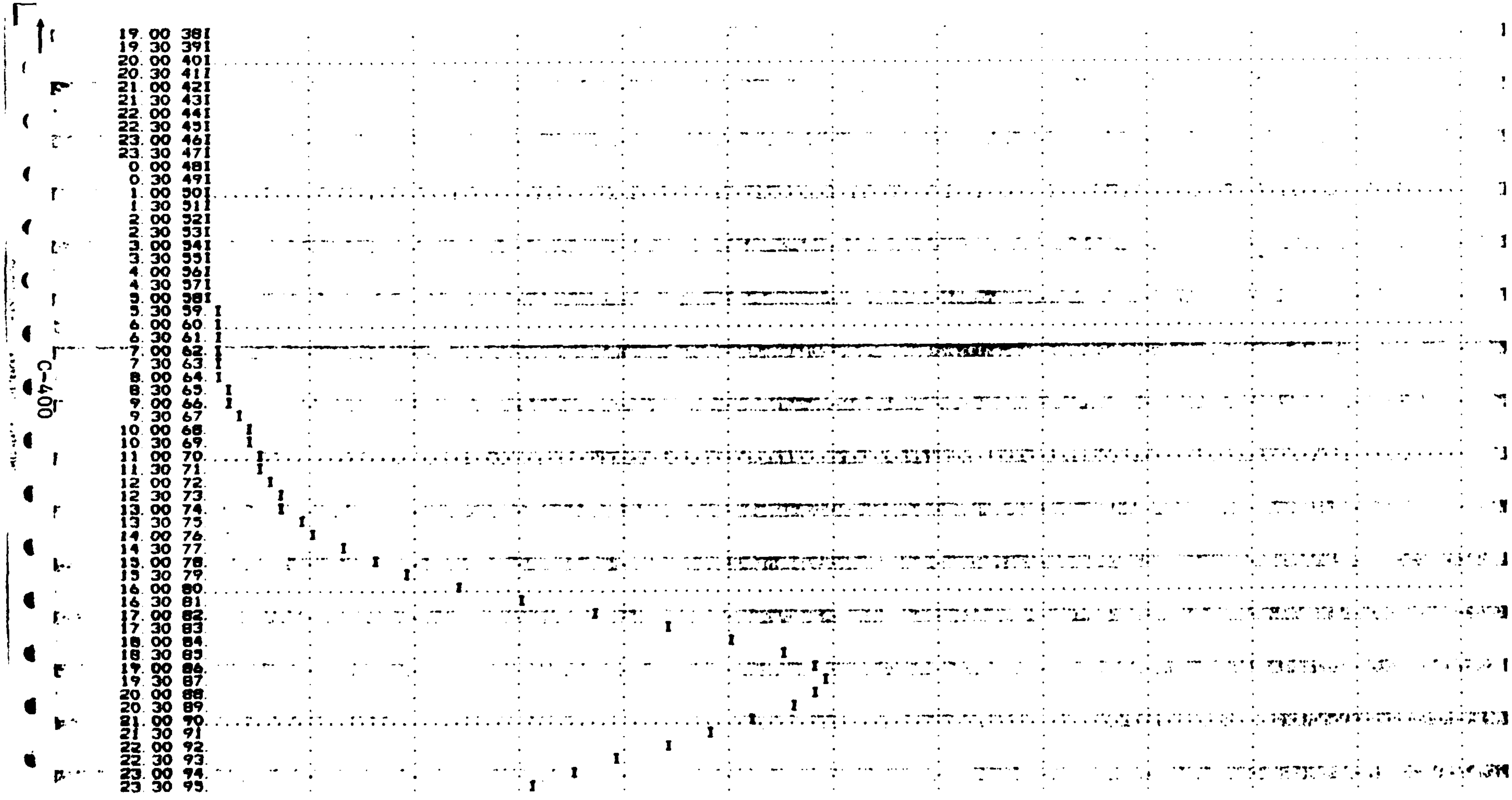
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10.00116.
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12.00120.
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DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

45.	43.	41.	40.	38.	37.	35.	34.	33.	32.
30.	29.	28.	27.	26.	26.	25.	24.	23.	23.
22.	21.	21.	20.	20.	19.	19.	19.	19.	19.
20.	21.	22.	24.	23.	27.	28.	28.	28.	27.
26.	24.	23.	21.	19.	18.	17.	15.	16.	20.
28.	43.	63.	87.	114.	142.	169.	195.	217.	240.
271.	333.	438.	590.	789.	1026.	1285.	1549.	1807.	2031.
2273.	2473.	2701.	3043.	3561.	4304.	5298.	6550.	8039.	10002.
12547.	15381.	18231.	20841.	22912.	24178.	24539.	24113.	23072.	21565.
19814.	18003.	16217.	14534.	13008.	11645.	10431.	9348.	8380.	7506.
6714.	6050.	5471.	4940.	4457.	4019.	3659.	3338.	3085.	2836.
2643.	2491.	2350.	2218.	2095.	1980.	1872.	1784.	1713.	1645.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	24539.	20704.	9308.	3848.	461768.
CMS	695.	586.	264.	109.	13076.
INCHES		2.57	4.62	4.77	4.77
MM		65.22	117.29	121.23	121.23
AC-FT		10266.	18461.	19081.	19081.
THOUS CU M		12663.	22772.	23536.	23536.

DVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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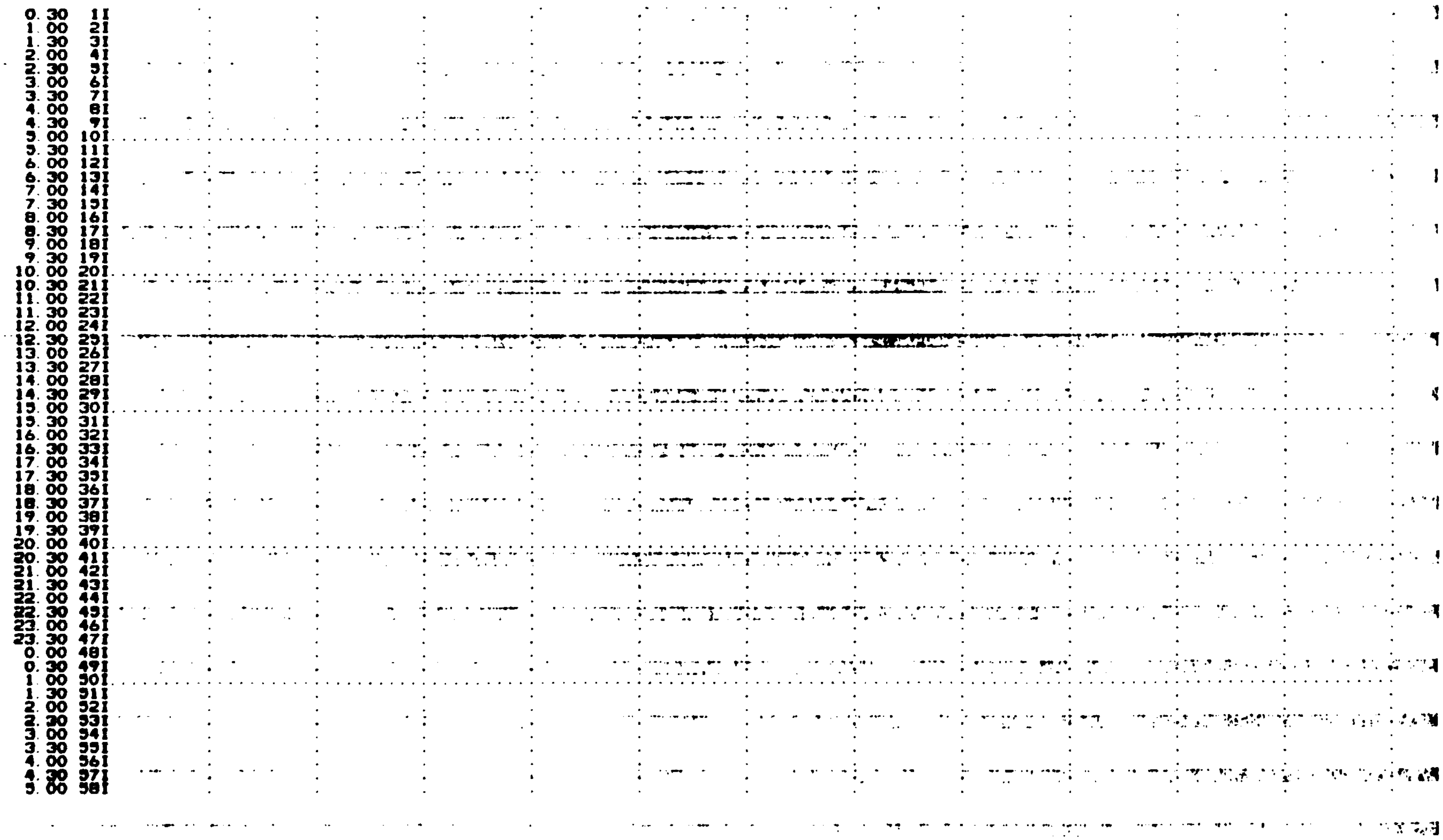
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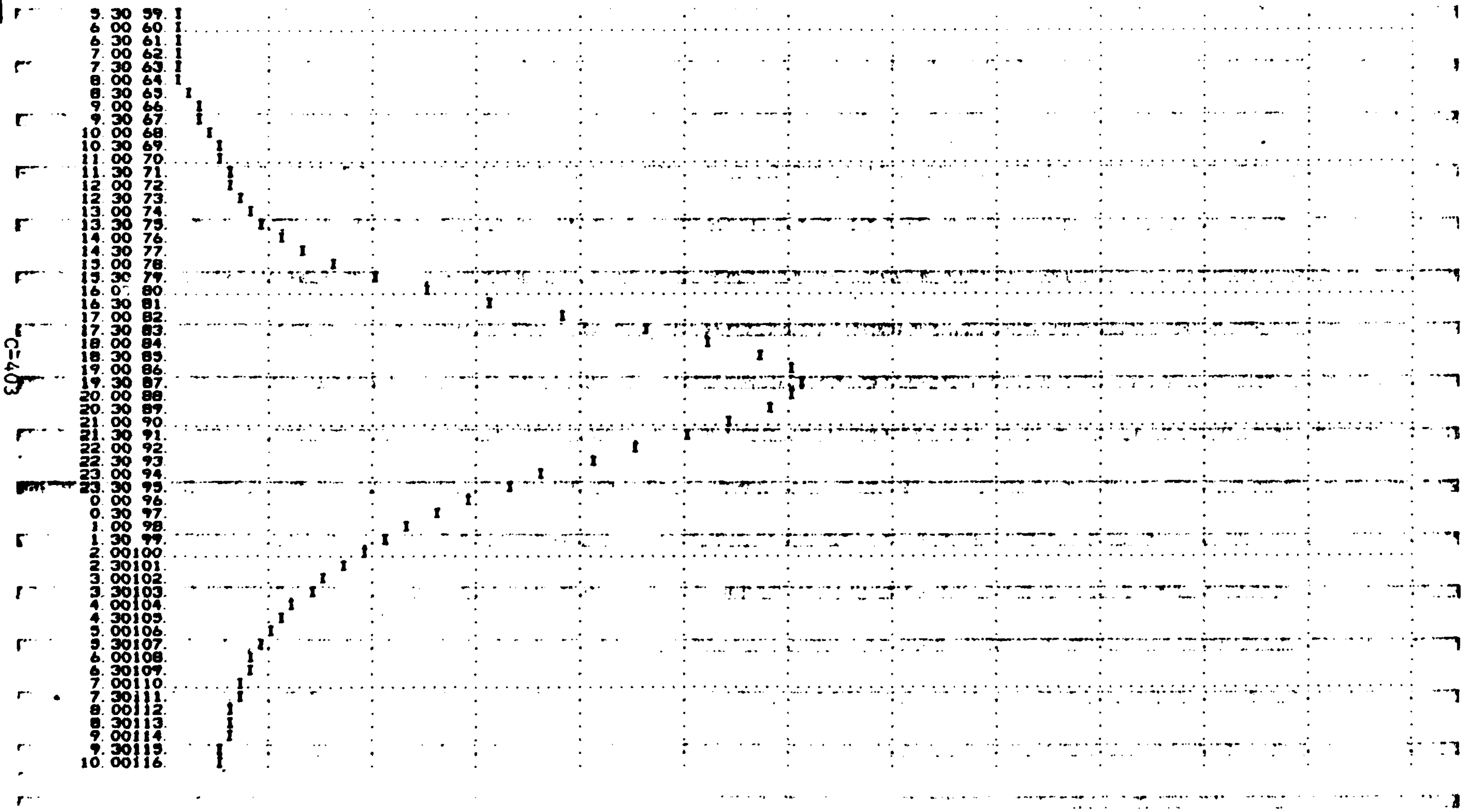
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 12.00120.    I
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OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

46.	44.	43.	41.	39.	38.	37.	35.	34.	33.
31.	30.	29.	28.	27.	26.	26.	25.	24.	23.
23.	22.	21.	21.	20.	20.	20.	20.	20.	20.
21.	22.	23.	25.	26.	28.	29.	29.	29.	28.
26.	25.	23.	22.	20.	18.	17.	16.	16.	20.
29.	44.	65.	90.	118.	146.	174.	201.	226.	248.
280.	344.	452.	609.	815.	1059.	1326.	1599.	1866.	2117.
2346.	2553.	2788.	3141.	3676.	4442.	5469.	6761.	8298.	10325.
12952.	15877.	18820.	21514.	23651.	24958.	25331.	24891.	23816.	22261.
20453.	18584.	16740.	15003.	13427.	12020.	10767.	9650.	8650.	7748.
6931.	6246.	5647.	5100.	4601.	4149.	3777.	3467.	3184.	2927.
2728.	2572.	2426.	2289.	2162.	2043.	1932.	1842.	1769.	1698.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25331.	21371.	9608.	3972.	476664.
CMS	717.	605.	272.	112.	13498.
INCHES		2.65	4.77	4.93	4.93
MM		67.33	121.07	125.14	125.14
AC-FT		10597.	19057.	19697.	19697.
THOUS CU M		13072.	23506.	24296.	24296.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

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  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
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  4.00   8I
  4.30   9I
  5.00  10I
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
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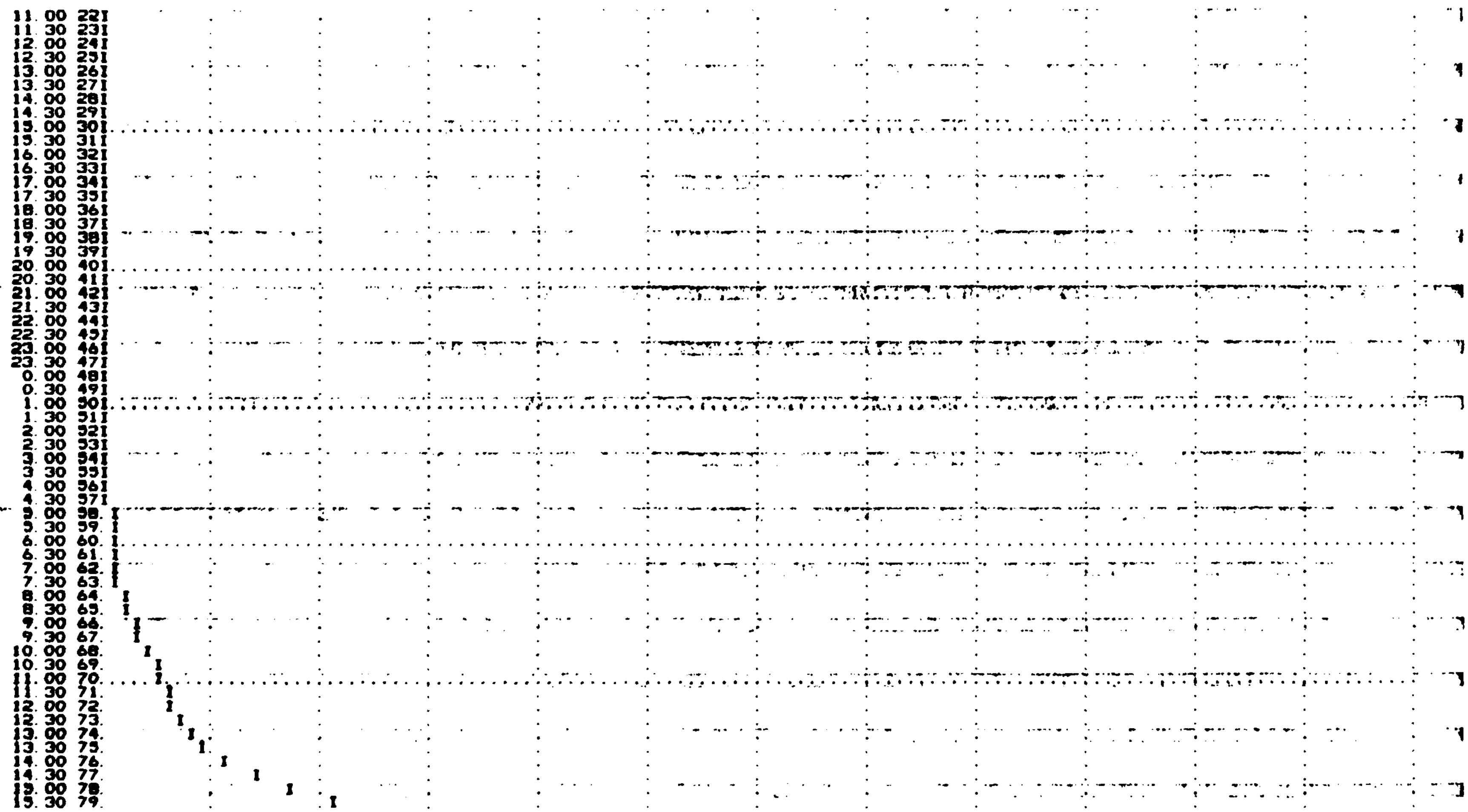
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19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
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6.30 61.
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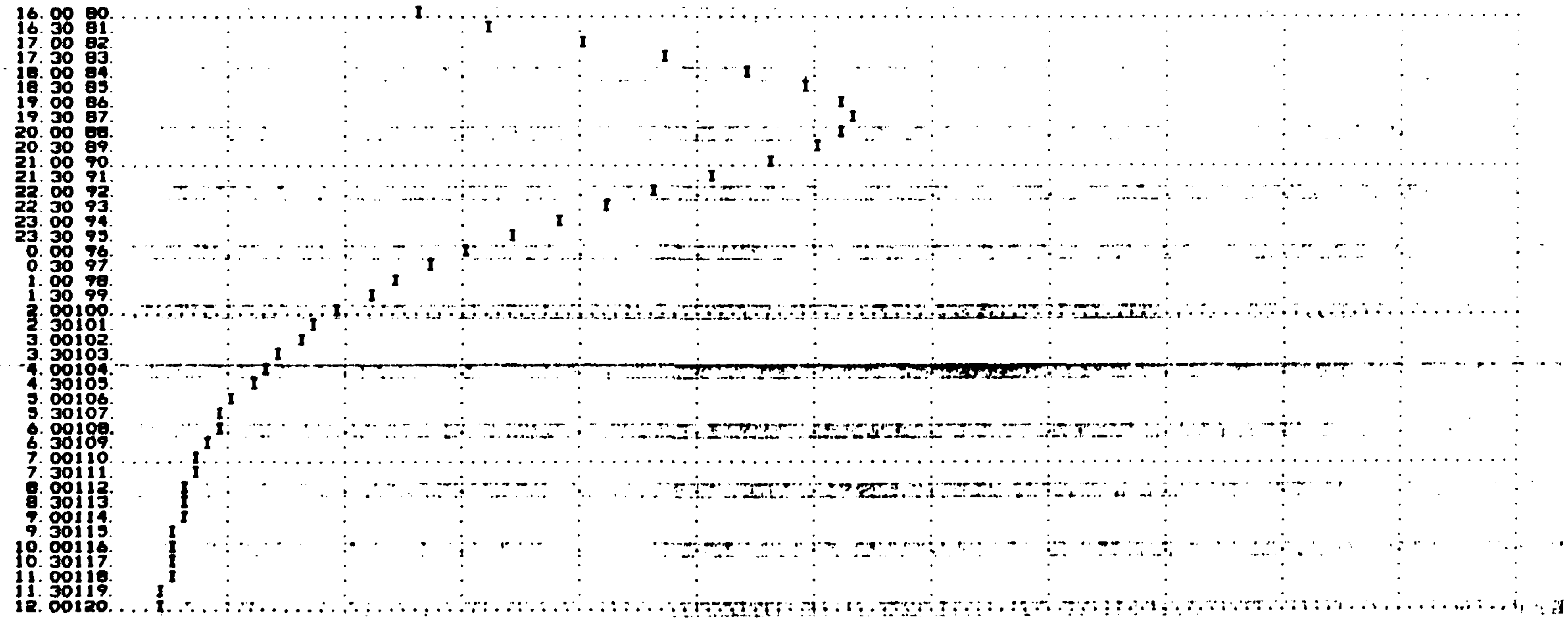

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

48.	46.	44.	42.	41.	39.	38.	36.	35.	34.
32.	31.	30.	29.	28.	27.	26.	26.	25.	24.
23.	23.	22.	22.	21.	21.	20.	20.	20.	21.
21.	22.	24.	25.	27.	28.	29.	30.	30.	29.
27.	26.	24.	22.	21.	19.	18.	16.	17.	21.
30.	46.	67.	93.	121.	151.	180.	208.	233.	256.
289.	359.	466.	628.	840.	1092.	1367.	1649.	1924.	2183.
2420.	2633.	2876.	3239.	3791.	4581.	5640.	6972.	8557.	10647.
13357.	16373.	19408.	22186.	24390.	25738.	26123.	25669.	24560.	22956.
21092.	19165.	17263.	15472.	13847.	12396.	11104.	9951.	8920.	7990.

7147.	6441.	5823.	5259.	4744.	4278.	3895.	3575.	3284.	3019.
2814.	2652.	2501.	2361.	2230.	2107.	1993.	1899.	1824.	1751.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	26123.	22039.	9908.	4076.	491560.
CMS	740.	624.	281.	116.	13919.
INCHES		2.73	4.92	5.08	5.08
MM		69.43	124.86	129.05	129.05
AC-FT		10929.	19652.	20312.	20312.
THOUS CU M		13480.	24241.	25055.	25055.

OVF

STATION I

```
                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
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 6.30  13I
 7.00  14I
 7.30  15I
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 8.30  17I
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13.30  27I
14.00  28I
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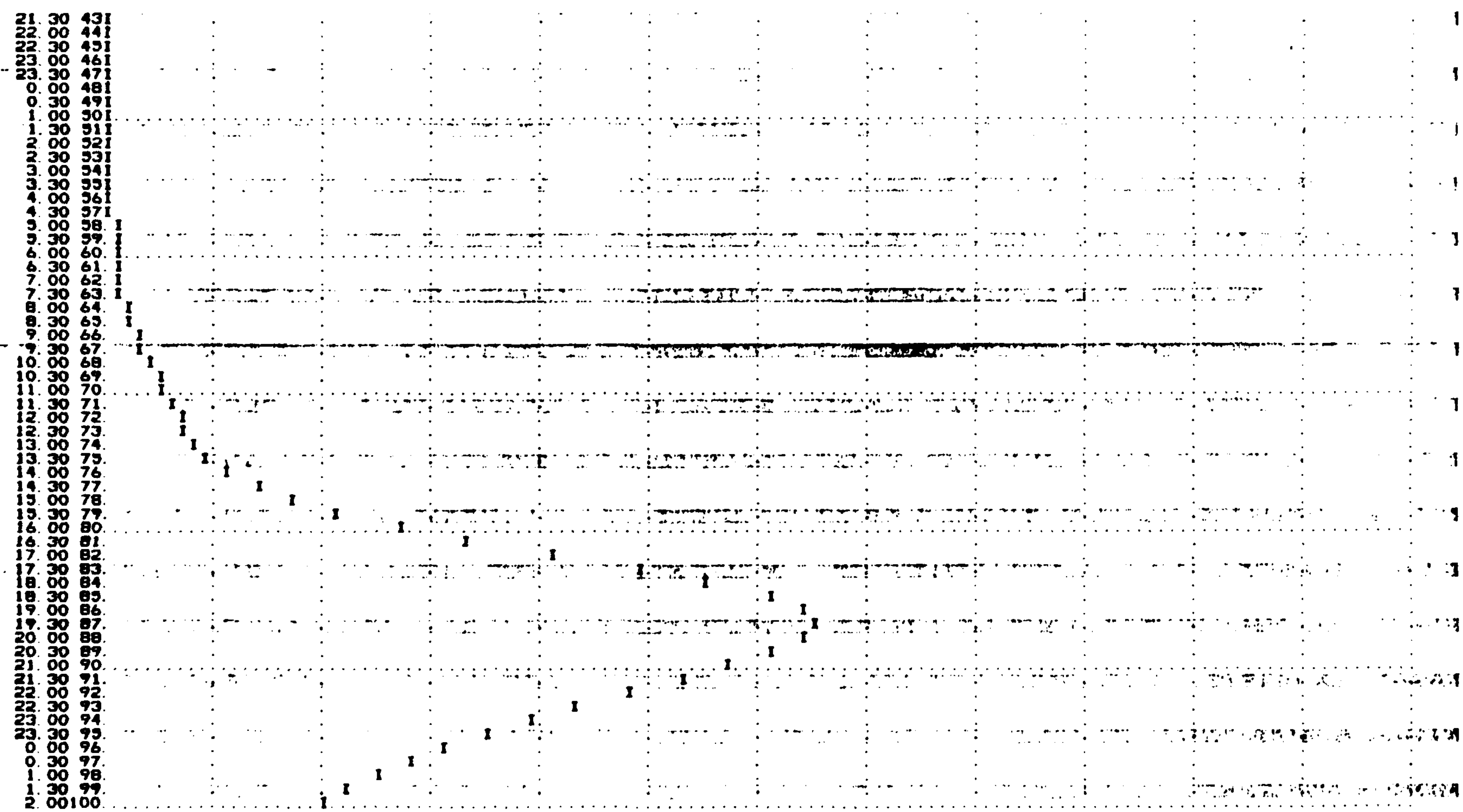
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23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.

FLAHERTY GIAVARA ASSOCIATES, P.C.

```
 2 30101.                  I
 3 00102.                 I
 3 30103.                I
 4 00104.               I
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 5 30107.            I
 6 00108.           I
 6 30109.          I
 7 00110.          I
 7 30111.         I
 8 00112.         I
 8 30113.        I
 9 00114.        I
 9 30115.        I
10 00116.       I
10 30117.       I
11 00118.       I
11 30119.       I
12 00120.      I

*OVN*
```

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

49.	47.	45.	43.	42.	40.	39.	37.	36.	35.
33.	32.	31.	30.	29.	28.	27.	26.	26.	25.
24.	23.	23.	22.	22.	21.	21.	21.	21.	21.
22.	23.	24.	26.	28.	29.	30.	31.	30.	29.
28.	27.	25.	23.	21.	20.	18.	17.	17.	21.
31.	47.	69.	75.	125.	155.	185.	214.	240.	263.
298.	366.	480.	647.	866.	1125.	1409.	1699.	1982.	2249.
2493.	2712.	2963.	3337.	3906.	4720.	5811.	7183.	8817.	10970.
13761.	16869.	19996.	22858.	25130.	26518.	26914.	26447.	25304.	23652.
21731.	19745.	17787.	15941.	14267.	12772.	11440.	10253.	9190.	8232.
7364.	6636.	6000.	5418.	4888.	4408.	4013.	3683.	3383.	3110.
2899.	2732.	2577.	2432.	2297.	2171.	2053.	1957.	1879.	1804.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	26914.	22707.	10208.	4220.	506456.
CMS	762.	643.	289.	120.	14341.
INCHES		2.82	5.06	5.23	5.23
MM		71.54	128.64	132.96	132.96
AC-FT		11260.	20248.	20928.	20928.
THOUS CU M		13889.	24975.	25814.	25814.

OVF

STATION 1

```
                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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1.30   31
2.00   41
2.30   51
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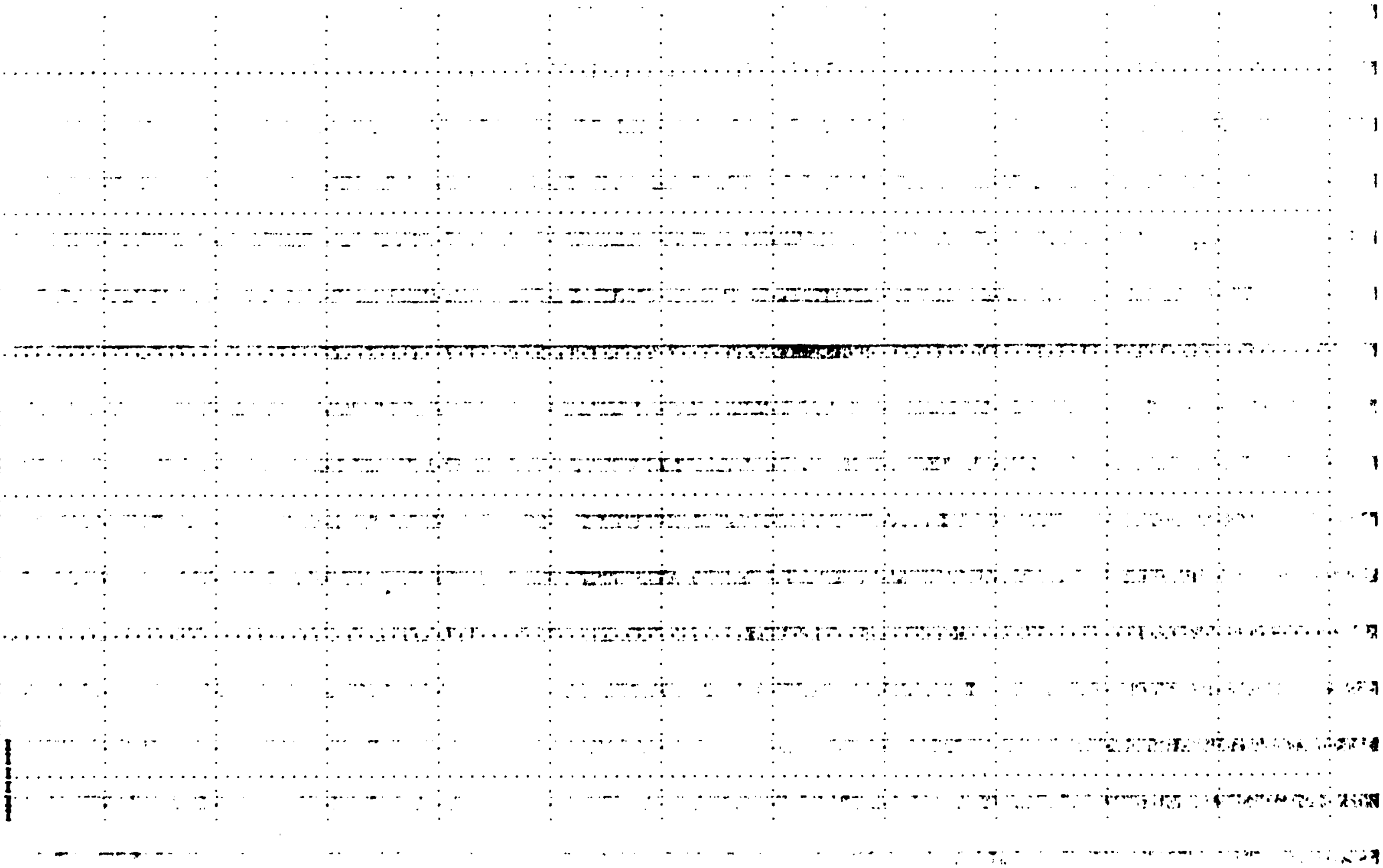

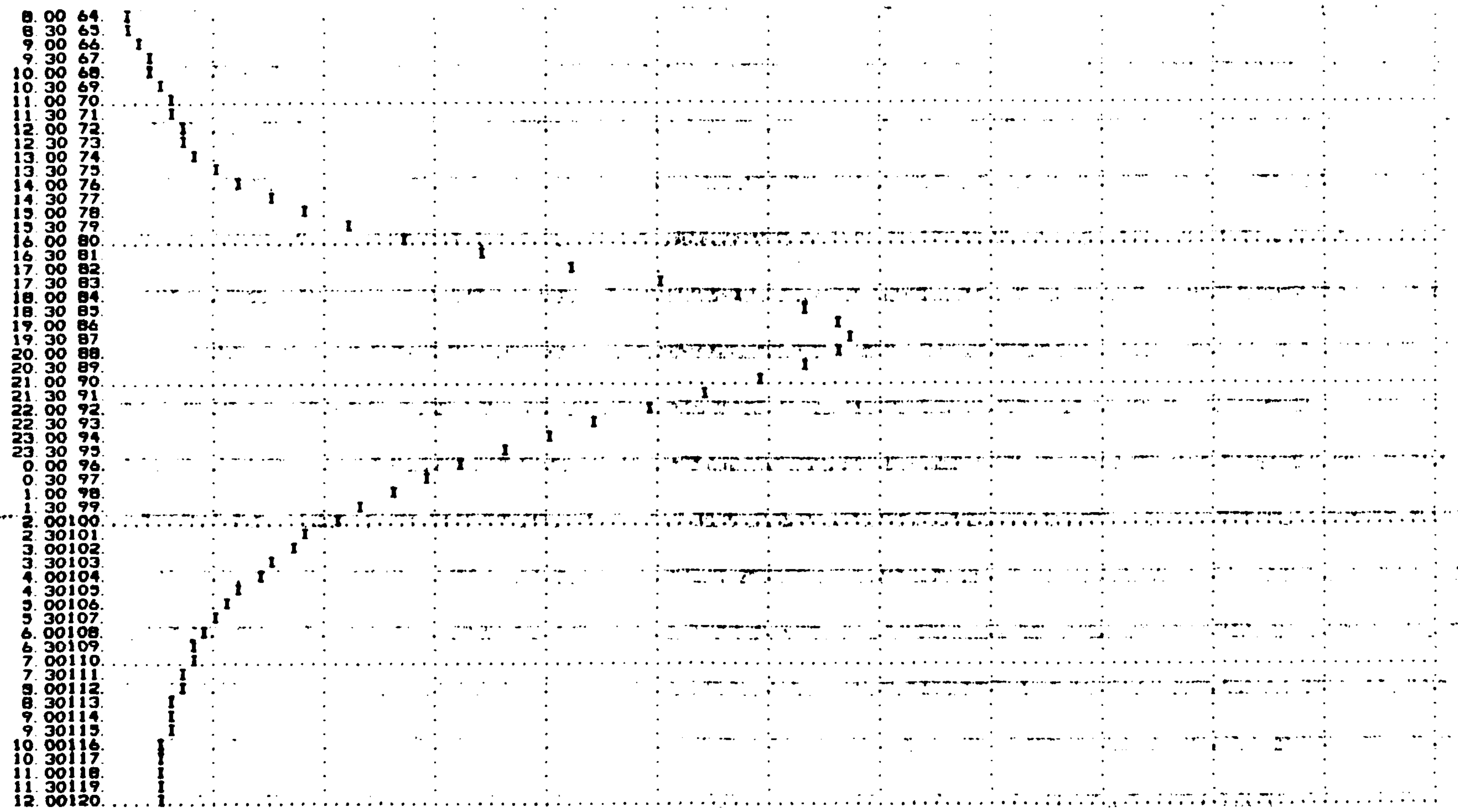
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10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

```
*OVN*

                          SUM OF 2 HYDROGRAPHS AT       1  PLAN 1  RTIO 8
    72.      69.      67.      64.      62.      59.      57.      55.      53.      51.
    49.      47.      46.      44.      43.      41.      40.      39.      38.      37.
    36.      35.      34.      33.      32.      31.      31.      31.      31.      31.
    32.      34       36.      38.      41.      43.      45.      45.      45.      43.
    41.      39.      36.      34.      31.      29.      27.      25.      25.      32.
    46.      69.     101.     140.     184.     229.     273.     314.     353.     387.
   438.     538.     706.     932.    1273.    1654.    2072.    2499.    2915.    3307.
  3666.    3989.    4357.    4907.    5744.    6941.    8546.   10564.   12966.   16132.
 20237.   24808.   29405.   33615.   36955.   38996.   39580.   38893.   37212.   34782.
 31958.   29037.   26157.   23442.   20980.   18782.   16824.   15078.   13515.   12106.
 10829.    9739.    8823.    7968.    7189.    6482.    5902.    5417.    4973.    4574.
  4263.    4018.    3790.    3577.    3379.    3193.    3019.    2878.    2763.    2654.

                     PEAK     6-HOUR    24-HOUR    72-HOUR   TOTAL VOLUME
           CFS      37580.    33373.     15012.      6207.       744787.
           CMS       1121.      946.       425.       176.        21090.
        INCHES                  4.14       7.45       7.70          7.70
            MM                105.20     189.18     195.53        195.53
         AC-FT                16558.     29778.     30778.        30778.
    THOUS CU M                20425.     36728.     37962.        37962.

*OVF*
                                STATION     1

                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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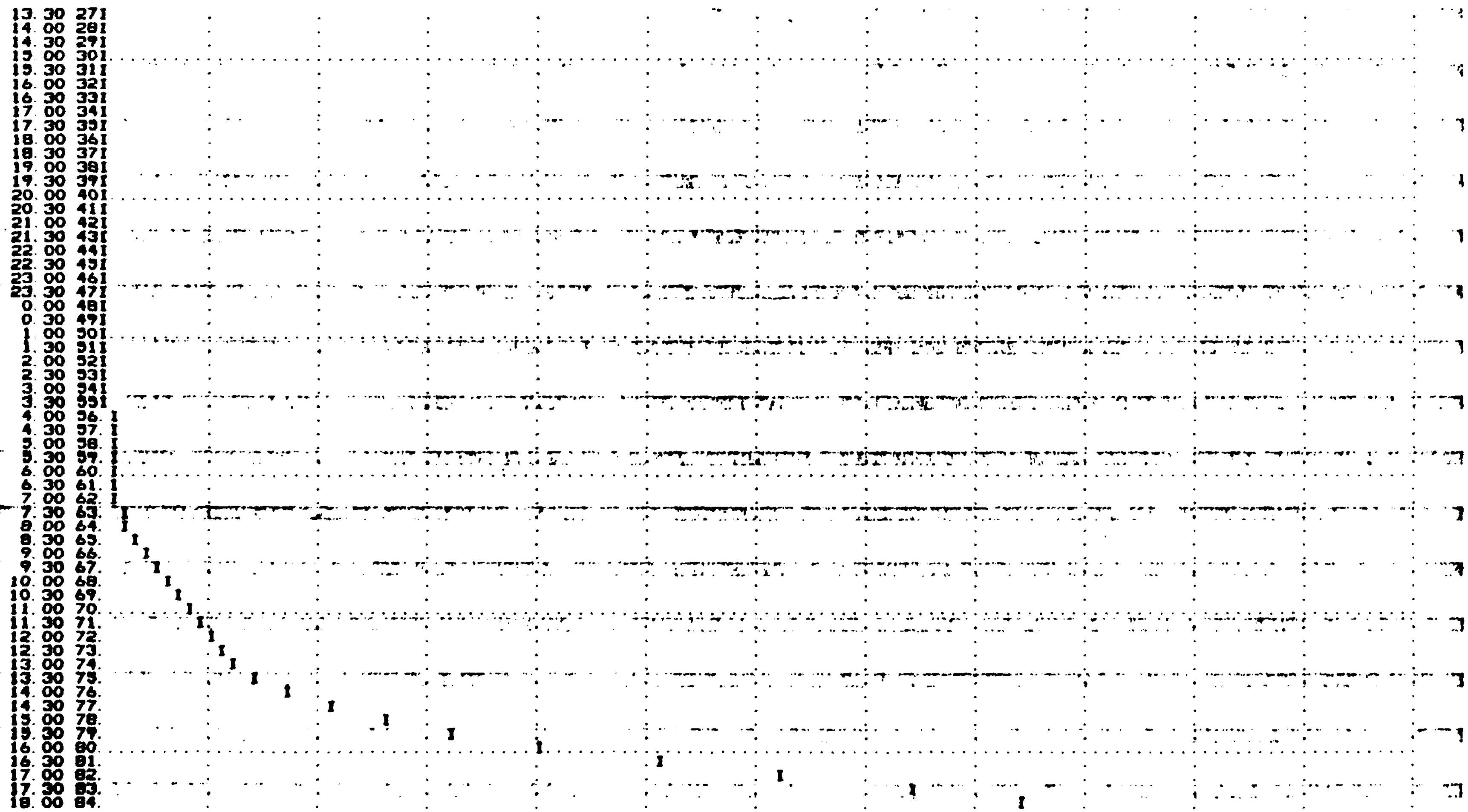
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20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
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23.30 47
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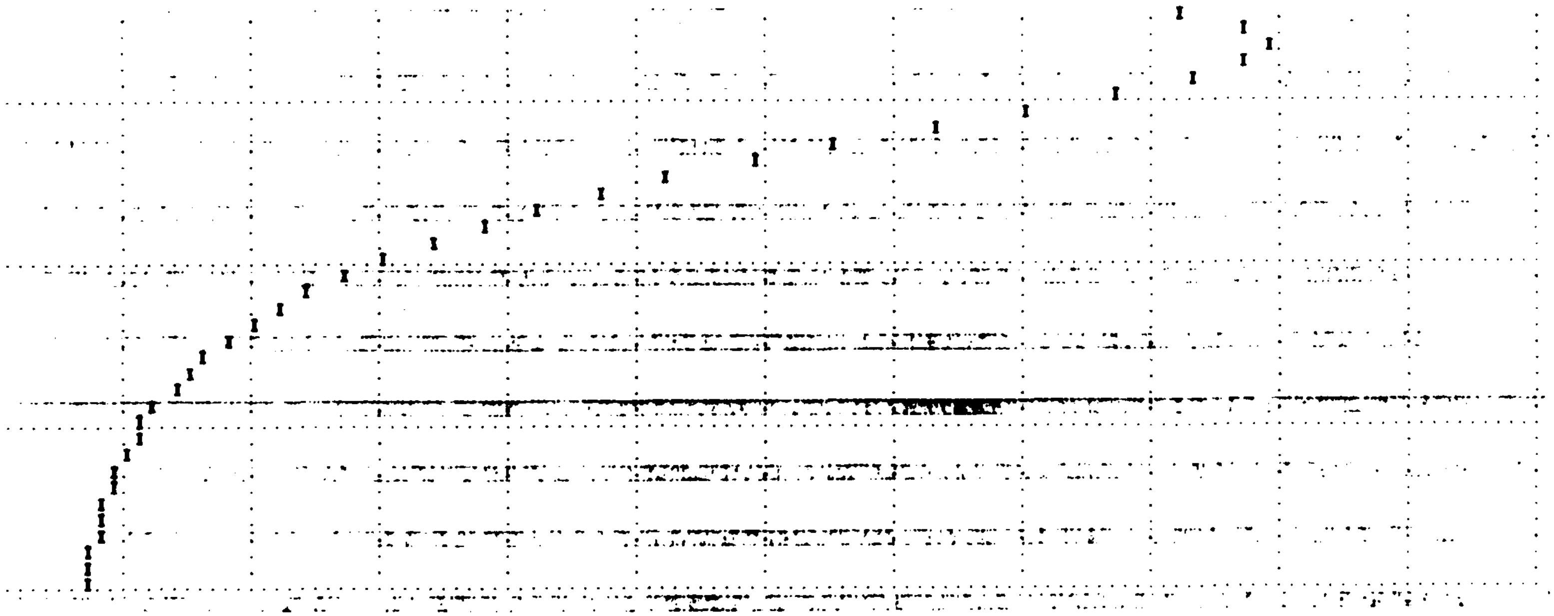

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

144.	138.	133.	128.	123.	118.	114.	110.	106.	102.
78.	75.	71.	88.	85.	82.	80.	77.	75.	73.
71.	69.	67.	65.	64.	62.	61.	61.	62.	63.
64.	67.	72.	77.	82.	86.	89.	90.	89.	87.
83.	78.	73.	68.	62.	58.	53.	50.	50.	63.
92.	138.	202.	280.	367.	457.	545.	629.	706.	775.
876.	1075.	1412.	1904.	2546.	3308.	4144.	4998.	5830	6615.
7332.	7977.	8714.	9815.	11488.	13883.	17091.	21128.	25931.	32264.
40475.	49615.	58811.	67230.	73910.	77993.	79159.	77785.	74425.	69564.
83716.	98075.	92313.	46884.	41961.	37564.	33647.	30156.	27031.	24213.
21658.	19517.	17647.	15936.	14377.	12964.	11804.	10834.	9951.	9148.
8526.	8036.	7580.	7154.	6757.	6386.	6039.	5756.	5527.	5307.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	79159.	66786.	30024.	12413.	1489574.

```
           CMS     2242.    1891.     850.     391.      42180.
        INCHES              8.28     14.90    15.40      15.40
            MM            210.40    378.35   391.06     391.06
         AC-FT             33117.    59552.   61553.     61553.
     THOUS CU M            40849.    73457.   75924.     75924.

*OVF*                         STATION     1

                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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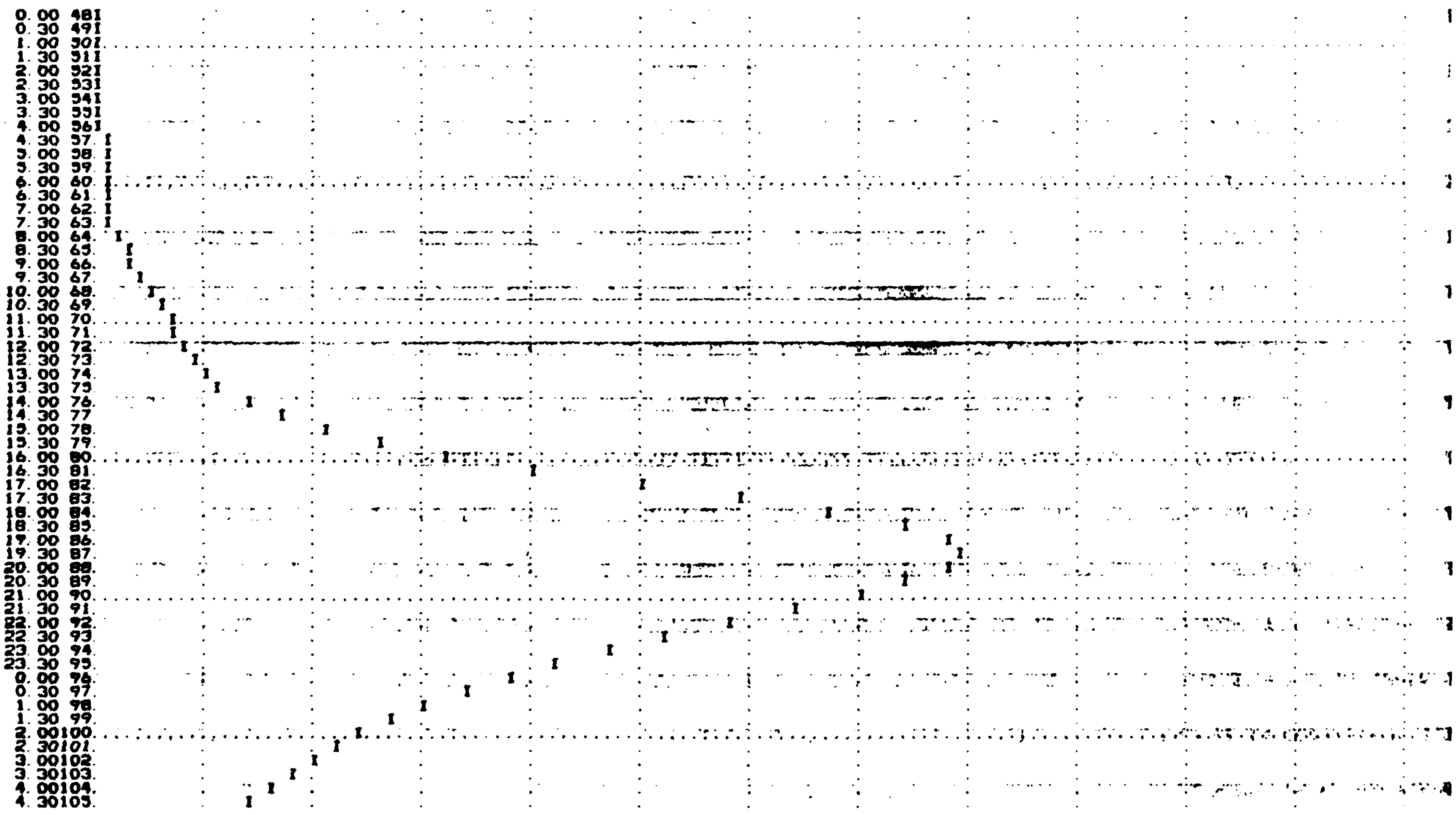
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12.00120.I............................................................
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DVN

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          **********        **********        **********        **********        **********

                              SUB-AREA RUNOFF COMPUTATION

              INFLOW HYDROGRAPH - SUBWATERSHED NO. 7 (OTSEGO LAKE)
                     ISTAQ   ICOMP   IECON   ITAPE   JPLT    JPRT   INAME  ISTAGE   IAUTO
                         1       0       0       0      0       0       1       0       0

                                       HYDROGRAPH DATA
              IHYDG    IUHG   TAREA    SNAP   TRSDA   TRSPC   RATIO   ISNOW   ISAME   LOCAL
                  1       1    6.38    0.00    6.38    0.00   0.000       0       1       0

                                         PRECIP DATA
                        SPFE     PMS      R6     R12     R24     R48     R72     R96
                        0.00   17.30   86.00  100.00  112.00  117.00    0.00    0.00
TRSPC COMPUTED BY THE PROGRAM IS 0.800

                                          LOSS DATA
            LROPT   STRKR   DLTKR   RTIOL   ERAIN   STRKS   RTIOK   STRTL   CNSTL   ALSMX   RTIMP
                0    0.00    0.00    1.00    0.00    0.00    1.00    0.00    0.00    0.00    1.00

                                     UNIT HYDROGRAPH DATA
                               TP=  0.00    CP=0.63    NTA=  0

                                        RECESSION DATA
                         STRTQ=    -2.00    QRCSN=   -0.10    RTIOR= 1.50
TC INCREASED TO TRHR OF  0.50
R INCREASED TO MINIMUM OF 0.5
CLARK DID NOT CONVERGE TO GIVEN SNYDER COEFFICIENTS
APPROXIMATE CLARK COEFFICIENTS FROM GIVEN SNYDER CP AND TP ARE TC= 1.00 AND R= 0.50 INTERVALS

           UNIT HYDROGRAPH  2 END-OF-PERIOD ORDINATES, LAG=   0.39 HOURS, CP= 0.50  VOL= 1.00
     4115.      4115.

       0                                       END-OF-PERIOD FLOW
  MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS   COMP Q     MO.DA  HR.MN  PERIOD   RAIN   EXCS   LOSS   COMP Q
```

1.01	0.30	1	0.00	0.00	0.00	28.	1.02	6.30	61	0.18	0.18	0.00	996.
1.01	1.00	2	0.00	0.00	0.00	44.	1.02	7.00	62	0.18	0.18	0.00	1484.
1.01	1.30	3	0.00	0.00	0.00	43.	1.02	7.30	63	0.18	0.18	0.00	1484.
1.01	2.00	4	0.00	0.00	0.00	43.	1.02	8.00	64	0.18	0.18	0.00	1483.
1.01	2.30	5	0.00	0.00	0.00	42.	1.02	8.30	65	0.18	0.18	0.00	1483.
1.01	3.00	6	0.00	0.00	0.00	42.	1.02	9.00	66	0.18	0.18	0.00	1483.
1.01	3.30	7	0.00	0.00	0.00	41.	1.02	9.30	67	0.18	0.18	0.00	1483.
1.01	4.00	8	0.00	0.00	0.00	41.	1.02	10.00	68	0.18	0.18	0.00	1483.
1.01	4.30	9	0.00	0.00	0.00	41.	1.02	10.30	69	0.18	0.18	0.00	1483.
1.01	5.00	10	0.00	0.00	0.00	40.	1.02	11.00	70	0.18	0.18	0.00	1483.
1.01	5.30	11	0.00	0.00	0.00	40.	1.02	11.30	71	0.18	0.18	0.00	1483.
1.01	6.00	12	0.00	0.00	0.00	40.	1.02	12.00	72	0.18	0.18	0.00	1483.
1.01	6.30	13	0.01	0.01	0.00	70.	1.02	12.30	73	0.66	0.66	0.00	3474.
1.01	7.00	14	0.01	0.01	0.00	100.	1.02	13.00	74	0.66	0.66	0.00	5465.
1.01	7.30	15	0.01	0.01	0.00	100.	1.02	13.30	75	0.80	0.80	0.00	6011.
1.01	8.00	16	0.01	0.01	0.00	99.	1.02	14.00	76	0.80	0.80	0.00	6558.
1.01	8.30	17	0.01	0.01	0.00	99.	1.02	14.30	77	1.00	1.00	0.00	7377.
1.01	9.00	18	0.01	0.01	0.00	99.	1.02	15.00	78	1.00	1.00	0.00	8197.
1.01	9.30	19	0.01	0.01	0.00	99.	1.02	15.30	79	1.21	1.21	0.00	9082.
1.01	10.00	20	0.01	0.01	0.00	98.	1.02	16.00	80	3.83	3.83	0.00	20764.
1.01	10.30	21	0.01	0.01	0.00	98.	1.02	16.30	81	0.93	0.93	0.00	19606.
1.01	11.00	22	0.01	0.01	0.00	98.	1.02	17.00	82	0.93	0.93	0.00	7650.
1.01	11.30	23	0.01	0.01	0.00	98.	1.02	17.30	83	0.73	0.73	0.00	6831.
1.01	12.00	24	0.01	0.01	0.00	97.	1.02	18.00	84	0.73	0.73	0.00	6011.
1.01	12.30	25	0.04	0.04	0.00	222.	1.02	18.30	85	0.09	0.09	0.00	3387.
1.01	13.00	26	0.04	0.04	0.00	346.	1.02	19.00	86	0.09	0.09	0.00	2035.
1.01	13.30	27	0.05	0.05	0.00	380.	1.02	19.30	87	0.09	0.09	0.00	1954.
1.01	14.00	28	0.05	0.05	0.00	414.	1.02	20.00	88	0.09	0.09	0.00	1877.
1.01	14.30	29	0.06	0.06	0.00	465.	1.02	20.30	89	0.09	0.09	0.00	1802.
1.01	15.00	30	0.06	0.06	0.00	516.	1.02	21.00	90	0.09	0.09	0.00	1730.
1.01	15.30	31	0.08	0.08	0.00	571.	1.02	21.30	91	0.09	0.09	0.00	1662.
1.01	16.00	32	0.24	0.24	0.00	1301.	1.02	22.00	92	0.09	0.09	0.00	1596.
1.01	16.30	33	0.06	0.06	0.00	1229.	1.02	22.30	93	0.09	0.09	0.00	1532.
1.01	17.00	34	0.06	0.06	0.00	481.	1.02	23.00	94	0.09	0.09	0.00	1471.
1.01	17.30	35	0.05	0.05	0.00	430.	1.02	23.30	95	0.09	0.09	0.00	1413.
1.01	18.00	36	0.05	0.05	0.00	379.	1.03	0.00	96	0.09	0.09	0.00	1357.
1.01	18.30	37	0.01	0.01	0.00	215.	1.03	0.30	97	0.00	0.00	0.00	1303.
1.01	19.00	38	0.01	0.01	0.00	128.	1.03	1.00	98	0.00	0.00	0.00	1251.
1.01	19.30	39	0.01	0.01	0.00	123.	1.03	1.30	99	0.00	0.00	0.00	1201.
1.01	20.00	40	0.01	0.01	0.00	118.	1.03	2.00	100	0.00	0.00	0.00	1154.
1.01	20.30	41	0.01	0.01	0.00	113.	1.03	2.30	101	0.00	0.00	0.00	1108.
1.01	21.00	42	0.01	0.01	0.00	109.	1.03	3.00	102	0.00	0.00	0.00	1064.
1.01	21.30	43	0.01	0.01	0.00	104.	1.03	3.30	103	0.00	0.00	0.00	1022.
1.01	22.00	44	0.01	0.01	0.00	100.	1.03	4.00	104	0.00	0.00	0.00	981.
1.01	22.30	45	0.01	0.01	0.00	96.	1.03	4.30	105	0.00	0.00	0.00	942.
1.01	23.00	46	0.01	0.01	0.00	92.	1.03	5.00	106	0.00	0.00	0.00	905.
1.01	23.30	47	0.01	0.01	0.00	89.	1.03	5.30	107	0.00	0.00	0.00	869.
1.02	0.00	48	0.01	0.01	0.00	85.	1.03	6.00	108	0.00	0.00	0.00	834.
1.02	0.30	49	0.06	0.06	0.00	280.	1.03	6.30	109	0.00	0.00	0.00	801.
1.02	1.00	50	0.06	0.06	0.00	510.	1.03	7.00	110	0.00	0.00	0.00	769.
1.02	1.30	51	0.06	0.06	0.00	510.	1.03	7.30	111	0.00	0.00	0.00	739.
1.02	2.00	52	0.06	0.06	0.00	510.	1.03	8.00	112	0.00	0.00	0.00	709.
1.02	2.30	53	0.06	0.06	0.00	510.	1.03	8.30	113	0.00	0.00	0.00	681.
1.02	3.00	54	0.06	0.06	0.00	510.	1.03	9.00	114	0.00	0.00	0.00	654.
1.02	3.30	55	0.06	0.06	0.00	510.	1.03	9.30	115	0.00	0.00	0.00	628.
1.02	4.00	56	0.06	0.06	0.00	510.	1.03	10.00	116	0.00	0.00	0.00	603.
1.02	4.30	57	0.06	0.06	0.00	510.	1.03	10.30	117	0.00	0.00	0.00	579.
1.02	5.00	58	0.06	0.06	0.00	510.	1.03	11.00	118	0.00	0.00	0.00	556.

1.02	5.30	59	0.06	0.06	0.00	509.	1.03	11.30	119	0.00	0.00	0.00	334.
1.02	6.00	60	0.06	0.06	0.00	509.	1.03	12.00	120	0.00	0.00	0.00	313.

SUM 18.37 18.37 0.00 182187.
(467.)(467.)(0.)(5158.96)

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20764.	8915.	3306.	1516.	181911.
CMS	588.	252.	94.	43.	5151.
INCHES		13.00	19.28	22.10	22.10
MM		330.17	489.75	561.41	561.41
AC-FT		4421.	6557.	7517.	7517.
THOUS CU M		5453.	8088.	9272.	9272.

OVF

STATION 1

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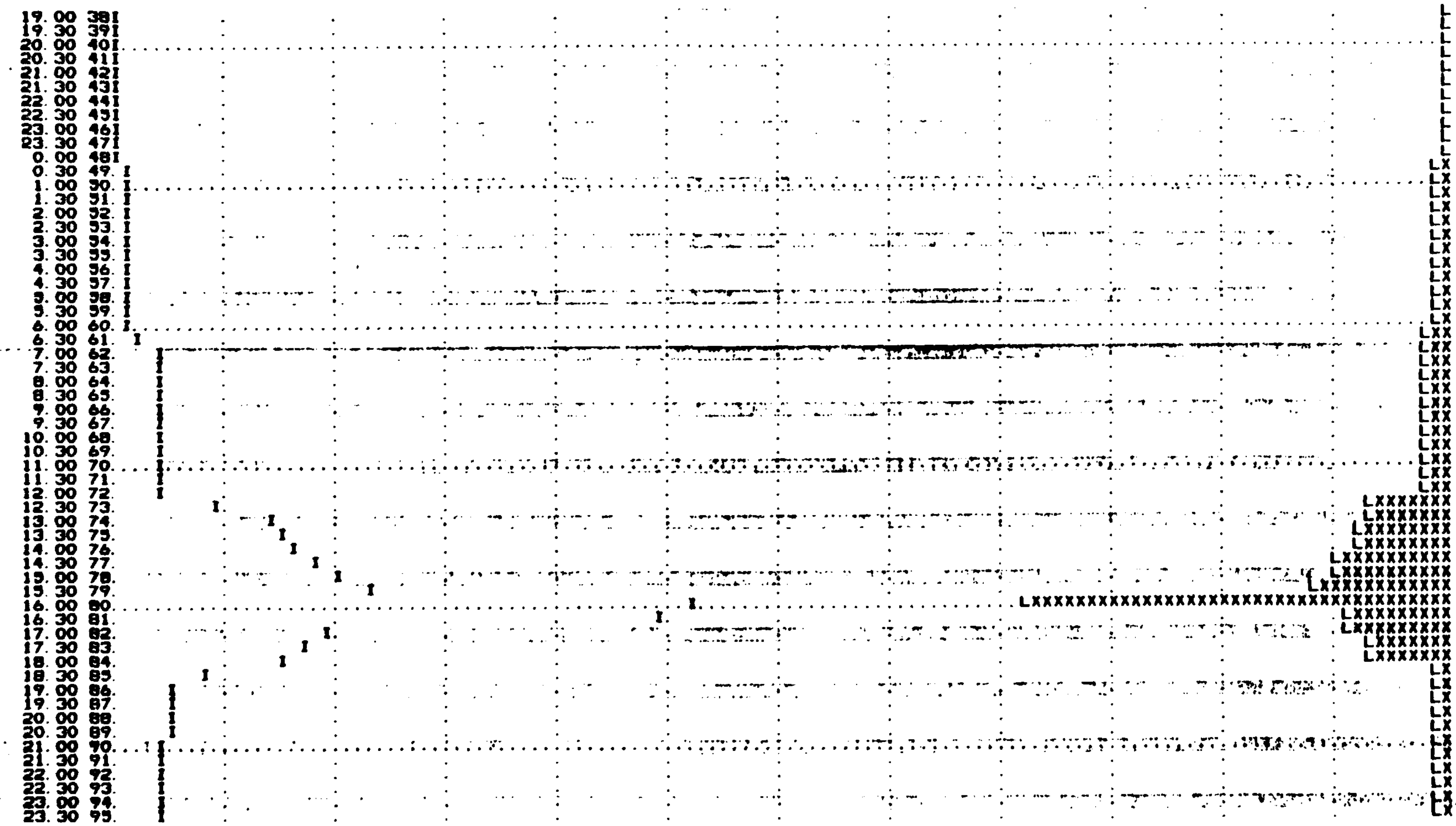
                        INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.     4000.    8000.   12000.   16000.   20000.   24000.      0.      0.      0.       0.       0.       0.
                                                                                         PRECIP(L) AND EXCESS(X)
        0.       0.       0.       0.       0.       0.       0.       0.      4.      3.       2.       1.       0.
 0.30   1I                                                                                                       L
 1.00   2I                                                                                                       L
 1.30   3I                                                                                                       L
 2.00   4I                                                                                                       L
 2.30   5I                                                                                                       L
 3.00   6I                                                                                                       L
 3.30   7I                                                                                                       L
 4.00   8I                                                                                                       L
 4.30   9I                                                                                                       L
 5.00  10I.......................................................................................................L
 5.30  11I                                                                                                       L
 6.00  12I                                                                                                       L
 6.30  13I                                                                                                       L
 7.00  14I                                                                                                       L
 7.30  15I                                                                                                       L
 8.00  16I                                                                                                       L
 8.30  17I                                                                                                       L
 9.00  18I                                                                                                       L
 9.30  19I                                                                                                       L
10.00  20I.......................................................................................................L
10.30  21I                                                                                                       L
11.00  22I                                                                                                       L
11.30  23I                                                                                                       L
12.00  24I                                                                                                       L
12.30  25. I                                                                                                     L
13.00  26. I                                                                                                     L
13.30  27. I                                                                                                     L
14.00  28. I                                                                                                     L
14.30  29. I                                                                                                    LX
15.00  30. I....................................................................................................LX
15.30  31. I                                                                                                    LX
16.00  32.    I                                                                                                LXX
16.30  33.    I                                                                                                 LX
17.00  34. I                                                                                                    LX
17.30  35. I                                                                                                     L
18.00  36. I                                                                                                     L
18.30  37. I                                                                                                     L
```


19.00 38
19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49.
1.00 50.
1.30 51.
2.00 52.
2.30 53.
3.00 54.
3.30 55.
4.00 56.
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
8.00 64.
8.30 65.
9.00 66.
9.30 67.
10.00 68.
10.30 69.
11.00 70.
11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
14.00 76.
14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.

```
 0.00 96.   I                                                              LX
 0.30 97.   I                                                               L
 1.00 98.   I                                                               L
 1.30 99.   I                                                               L
 2.00100.  .I...............................................................L
 2.30101.   I                                                               L
 3.00102.   I                                                               L
 3.30103.   I                                                               L
 4.00104.  I                                                                L
 4.30105.  I                                                                L
 5.00106.  I                                                                L
 5.30107.  I                                                                L
 6.00108.  I                                                                L
 6.30109.  I                                                                L
 7.00110.  I................................................................L
 7.30111.  I                                                                L
 8.00112.  I                                                                L
 8.30113.  I                                                                L
 9.00114.  I                                                                L
 9.30115.  I                                                                L
10.00116.  I                                                                L
10.30117. I                                                                 L
11.00118. I                                                                 L
11.30119. I                                                                 L
12.00120. I.................................................................L

*OVN*
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HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 1

6.	9.	9.	9.	8.	8.	8.	8.	8.	8.
8.	8.	14.	20.	20.	20.	20.	20.	20.	20.
20.	20.	20.	19.	44.	69.	76.	83.	93.	103.
114.	260.	246.	96.	86.	76.	43.	26.	25.	24.
23.	22.	21.	20.	19.	18.	18.	17.	56.	102.
102.	102.	102.	102.	102.	102.	102.	102.	102.	102.
199.	297.	297.	297.	297.	297.	297.	297.	297.	297.
297.	297.	695.	1093.	1202.	1312.	1475.	1639.	1816.	4153.
3921.	1530.	1366.	1202.	677.	407.	391.	375.	360.	346.
332.	319.	306.	294.	283.	271.	261.	250.	240.	231.
222.	213.	204.	196.	188.	181.	174.	167.	160.	154.
148.	142.	136.	131.	126.	121.	116.	111.	107.	103.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4153.	1783.	661.	303.	36382.
CMS	118.	50.	19.	9.	1030.
INCHES		2.60	3.86	4.42	4.42
MM		66.03	97.95	112.28	112.28
AC-FT		884.	1311.	1503.	1503.
THOUS CU M		1091.	1618.	1854.	1854.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 2

8.	13.	12.	12.	12.	12.	12.	12.	12.	12.
12.	11.	20.	29.	29.	29.	29.	29.	29.	29.
28.	28.	28.	28.	64.	100.	110.	120.	139.	150.
166.	377.	356.	140.	125.	110.	62.	37.	36.	34.

33.	31.	30.	29.	28.	27.	26.	25.	81.	148.
148.	148.	148.	148.	148.	148.	148.	148.	148.	148.
289.	430.	430.	430.	430.	430.	430.	430.	430.	430.
430.	430.	1007.	1585.	1743.	1902.	2139.	2377.	2634.	6022.
5686.	2219.	1981.	1743.	982.	590.	567.	544.	523.	502.
482.	463.	444.	427.	410.	393.	378.	363.	348.	335.
321.	308.	296.	284.	273.	262.	252.	242.	232.	223.
214.	206.	197.	190.	182.	175.	168.	161.	155.	149.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6022.	2585.	959.	440.	52754.
CMS	171.	73.	27.	12.	1494.
INCHES		3.77	5.59	6.41	6.41
MM		95.75	142.03	162.81	162.81
AC-FT		1282.	1902.	2180.	2180.
THOUS CU M		1581.	2346.	2689.	2689.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 3

8.	13.	13.	13.	13.	13.	12.	12.	12.	12.
12.	12.	21.	30.	30.	30.	30.	30.	30.	29.
29.	29.	29.	29.	67.	104.	114.	124.	139.	155.
171.	390.	369.	144.	129.	114.	64.	38.	37.	35.
34.	33.	31.	30.	29.	28.	27.	26.	84.	153.
153.	153.	153.	153.	153.	153.	153.	153.	153.	153.
299.	445.	445.	445.	445.	445.	445.	445.	445.	445.
445.	445.	1042.	1639.	1803.	1967.	2213.	2459.	2725.	6229.
5882.	2295.	2049.	1803.	1016.	611.	586.	563.	541.	519.
499.	477.	460.	441.	424.	407.	391.	375.	360.	346.
332.	319.	306.	294.	283.	271.	261.	250.	240.	231.
222.	213.	204.	196.	188.	181.	174.	167.	160.	154.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6229.	2675.	992.	455.	54573.
CMS	176.	76.	28.	13.	1545.
INCHES		3.90	5.78	6.63	6.63
MM		99.05	146.72	168.42	168.42
AC-FT		1326.	1967.	2255.	2255.
THOUS CU M		1636.	2427.	2782.	2782.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 4

9.	13.	13.	13.	13.	13.	13.	13.	13.	12.
12.	12.	22.	31.	31.	31.	31.	31.	31.	30.
30.	30.	30.	30.	69.	107.	118.	128.	144.	160.
177.	403.	381.	149.	133.	117.	66.	40.	38.	36.
35.	34.	32.	31.	30.	29.	27.	26.	87.	158.
158.	158.	158.	158.	158.	158.	158.	158.	158.	158.
309.	460.	460.	460.	460.	460.	460.	460.	460.	460.
460.	460.	1077.	1694.	1863.	2033.	2287.	2541.	2815.	6437.
6078.	2372.	2118.	1863.	1050.	631.	606.	582.	559.	536.
515.	495.	475.	456.	438.	421.	404.	388.	372.	358.
343.	330.	317.	304.	292.	280.	269.	259.	248.	238.
229.	220.	211.	203.	195.	187.	180.	172.	166.	159.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6437.	2764.	1025.	470.	56392.
CMS	182.	78.	29.	13.	1597.

INCHES	4.03	5.98	6.85	6.85
MM	102.35	151.82	174.04	174.04
AC-FT	1370.	2033.	2330.	2330.
THOUS CU M	1690.	2507.	2874.	2874.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 5

9.	14.	14.	14.	13.	13.	13.	13.	13.	13.
13.	13.	22.	32.	32.	32.	32.	32.	32.	31.
31.	31.	31.	31.	71.	111.	122.	132.	149.	165.
183.	416.	393.	154.	138.	121.	69.	41.	39.	38.
36.	35.	33.	32.	31.	30.	28.	27.	90.	163.
163.	163.	163.	163.	163.	163.	163.	163.	163.	163.
319.	475.	475.	475.	475.	475.	475.	475.	475.	475.
475.	475.	1112.	1749.	1924.	2098.	2361.	2623.	2906.	6645.
6274.	2448.	2186.	1924.	1084.	651.	625.	601.	577.	554.
532.	511.	490.	471.	452.	434.	417.	400.	384.	369.
354.	340.	327.	314.	301.	289.	278.	267.	256.	246.
236.	227.	218.	209.	201.	193.	185.	178.	171.	164.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6645.	2853.	1058.	485.	58211.
CMS	188.	81.	30.	14.	1648.
INCHES		4.16	6.17	7.07	7.07
MM		105.65	156.72	179.65	179.65
AC-FT		1415.	2098.	2405.	2405.
THOUS CU M		1745.	2588.	2967.	2967.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 6

9.	14.	14.	14.	14.	14.	14.	14.	13.	13.
13.	13.	23.	33.	33.	33.	33.	33.	33.	32.
32.	32.	32.	32.	73.	114.	125.	137.	153.	170.
189.	429.	405.	159.	142.	125.	71.	42.	40.	39.
37.	36.	34.	33.	32.	30.	29.	28.	92.	168.
168.	168.	168.	168.	168.	168.	168.	168.	168.	168.
329.	490.	490.	490.	490.	490.	490.	490.	489.	489.
489.	489.	1146.	1803.	1984.	2164.	2434.	2705.	2997.	6852.
6470.	2525.	2254.	1984.	1118.	672.	645.	619.	595.	571.
548.	527.	506.	486.	466.	448.	430.	413.	396.	381.
366.	351.	337.	324.	311.	298.	287.	275.	264.	254.
244.	234.	225.	216.	207.	199.	191.	183.	176.	169.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	6852.	2942.	1091.	500.	60030.
CMS	194.	83.	31.	14.	1700.
INCHES		4.29	6.36	7.29	7.29
MM		108.96	161.62	185.27	185.27
AC-FT		1459.	2164.	2481.	2481.
THOUS CU M		1799.	2669.	3060.	3060.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 7

10.	15.	15.	14.	14.	14.	14.	14.	14.	14.
14.	13.	24.	34.	34.	34.	34.	34.	34.	33.
33.	33.	33.	33.	75.	118.	129.	141.	158.	175.
194.	442.	418.	164.	146.	127.	73.	43.	42.	40.
38.	37.	35.	34.	33.	31.	30.	29.	95.	173.

173.	173.	173.	173.	173.	173.	173.	173.	173.	173.
339	504.	504.	504.	504.	504.	504.	504.	504.	504.
504.	504.	1181.	1858.	2044.	2230.	2508.	2787.	3088.	7060.
6666.	2601.	2322.	2044.	1152.	692.	664.	638.	613.	588.
565.	543.	521.	500.	480.	461.	443.	425.	408.	392.
377.	362.	347.	334.	320.	308.	295.	284.	272.	261.
251.	241.	232.	222.	214.	205.	197.	189.	182.	174.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	7060.	3031.	1124.	515.	61850.
CMS	200.	86.	32.	15.	1751.
INCHES		4.42	6.56	7.51	7.51
MM		112.26	166.51	190.88	190.88
AC-FT		1503.	2230.	2556.	2556.
THOUS CU M		1854.	2750.	3152.	3152.

HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 8

14.	22.	22.	21.	21.	21.	21.	20.	20.	20.
20.	20.	35.	50.	50.	50.	50.	49.	49.	49.
49.	49.	49.	49.	111.	173.	190.	207.	232.	258.
286.	651.	614.	241.	215.	189.	107.	64.	61.	59.
56.	54.	52.	50.	48.	46.	44.	43.	140.	255.
255.	255.	255.	255.	255.	255.	255.	255.	255.	255.
498.	742.	742.	742.	742.	742.	742.	742.	742.	742.
742.	742.	1737.	2732.	3006.	3279.	3689.	4098.	4541.	10382.
9803.	3825.	3415.	3006.	1693.	1018.	977.	938.	901.	865.
831.	798.	766.	736.	706.	678.	651.	626.	601.	577.
554.	532.	511.	490.	471.	452.	434.	417.	400.	385.
369.	355.	341.	327.	314.	302.	290.	278.	267.	256.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	10382.	4458.	1653.	758.	90955.
CMS	294.	126.	47.	21.	2576.
INCHES		6.50	9.64	11.05	11.05
MM		165.08	244.87	280.71	280.71
AC-FT		2210.	3279.	3758.	3758.
THOUS CU M		2726.	4044.	4636.	4636.

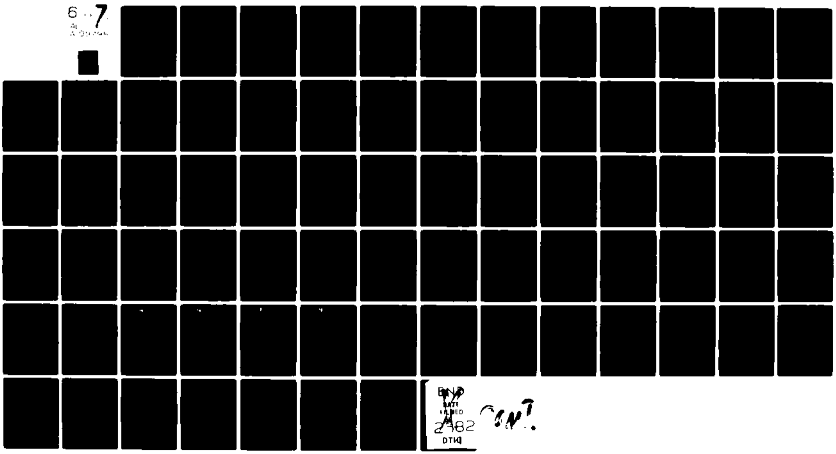
HYDROGRAPH AT STA 1 FOR PLAN 1, RTIO 9

28.	44.	43.	43.	42.	42.	41.	41.	41.	40.
40.	40.	70.	100.	100.	99.	99.	99.	99.	98.
98.	98.	98.	97.	222.	346.	380.	414.	465.	516.
571.	1301.	1229.	481.	430.	379.	215.	128.	123.	118.
113.	109.	104.	100.	96.	92.	89.	85.	280.	510.
510.	510.	510.	510.	510.	510.	510.	510.	509.	509.
996.	1484.	1484.	1483.	1483.	1483.	1483.	1483.	1483.	1483.
1483.	1483.	3474.	5465.	6011.	6558.	7377.	8197.	9082.	20764.
19606.	7650.	6831.	6011.	3387.	2035.	1954.	1877.	1802.	1730.
1662.	1596.	1532.	1471.	1413.	1357.	1303.	1251.	1201.	1154.
1108.	1064.	1022.	981.	942.	905.	869.	834.	801.	769.
739.	709.	681.	654.	628.	603.	579.	556.	534.	513.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	20764.	8915.	3306.	1516.	181910.
CMS	588.	252.	94.	43.	5151.
INCHES		13.00	19.28	22.10	22.10

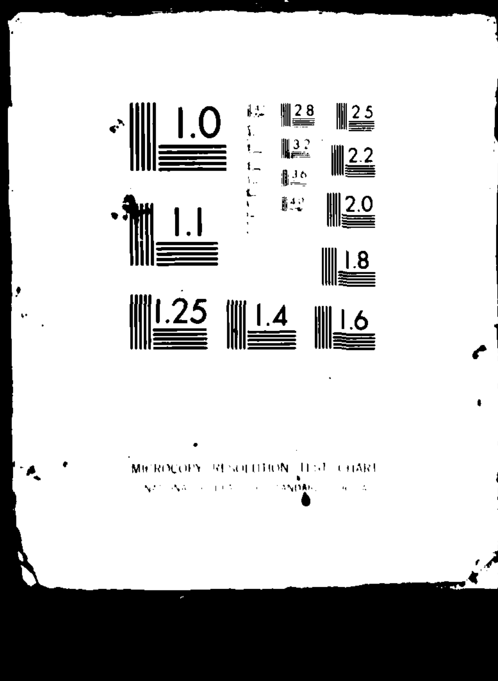
AD-A109 795 FLAHERTY-GIAVARA ASSOCIATES NEW HAVEN CT F/G 13/13
NATIONAL DAM SAFETY PROGRAM. OTSEGO LAKE DAM (INVENTORY NUMBER --ETC(U)
JUL 81 H C FLAHERTY DACW51-81-C-0006

UNCLASSIFIED NL



6 OF 7

AD-A109795



MM	330.17	489.74	561.41	561.41
AC-FT	4421.	6557.	7517.	7517.
THOUS CU M	5453.	8088.	9272.	9272.

********** ********** ********** ********** **********

COMBINE HYDROGRAPHS

COMBINE 2 INFLOW HYDROGRAPHS

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	2	0	0	0	0	1	0	0

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 1

34.	36.	35.	34.	33.	32.	31.	30.	29.	28.
28.	27.	32.	38.	37.	36.	36.	35.	35.	34.
34.	33.	33.	33.	57.	82.	88.	95.	105.	116.
127.	274.	260.	112.	102.	93.	61.	44.	42.	41.
39.	37.	35.	34.	32.	30.	28.	27.	66.	115.
120.	130.	142.	158.	175.	193.	211.	228.	243.	257.
374.	512.	579.	677.	806.	958.	1125.	1296.	1463.	1620.
1763.	1892.	2438.	3096.	3900.	4088.	4874.	5865.	7003.	10606.
12016.	11453.	13128.	14648.	15439.	16006.	16223.	15932.	15245.	14259.
13116.	11934.	10769.	9671.	8675.	7784.	6990.	6281.	5646.	5073.
4553.	4116.	3734.	3383.	3064.	2774.	2535.	2334.	2130.	1983.
1853.	1749.	1652.	1562.	1477.	1398.	1324.	1262.	1212.	1164.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	16223.	14066.	6641.	2786.	334297.
CMS	459.	398.	188.	79.	9466.
INCHES		1.61	3.04	3.18	3.18
MM		40.84	77.12	80.88	80.88
AC-FT		6975.	13172.	13814.	13814.
THOUS CU M		8604.	16247.	17039.	17039.

OVF

STATION 1

```
                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
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  6.30  13I
  7.00  14I
  7.30  15I
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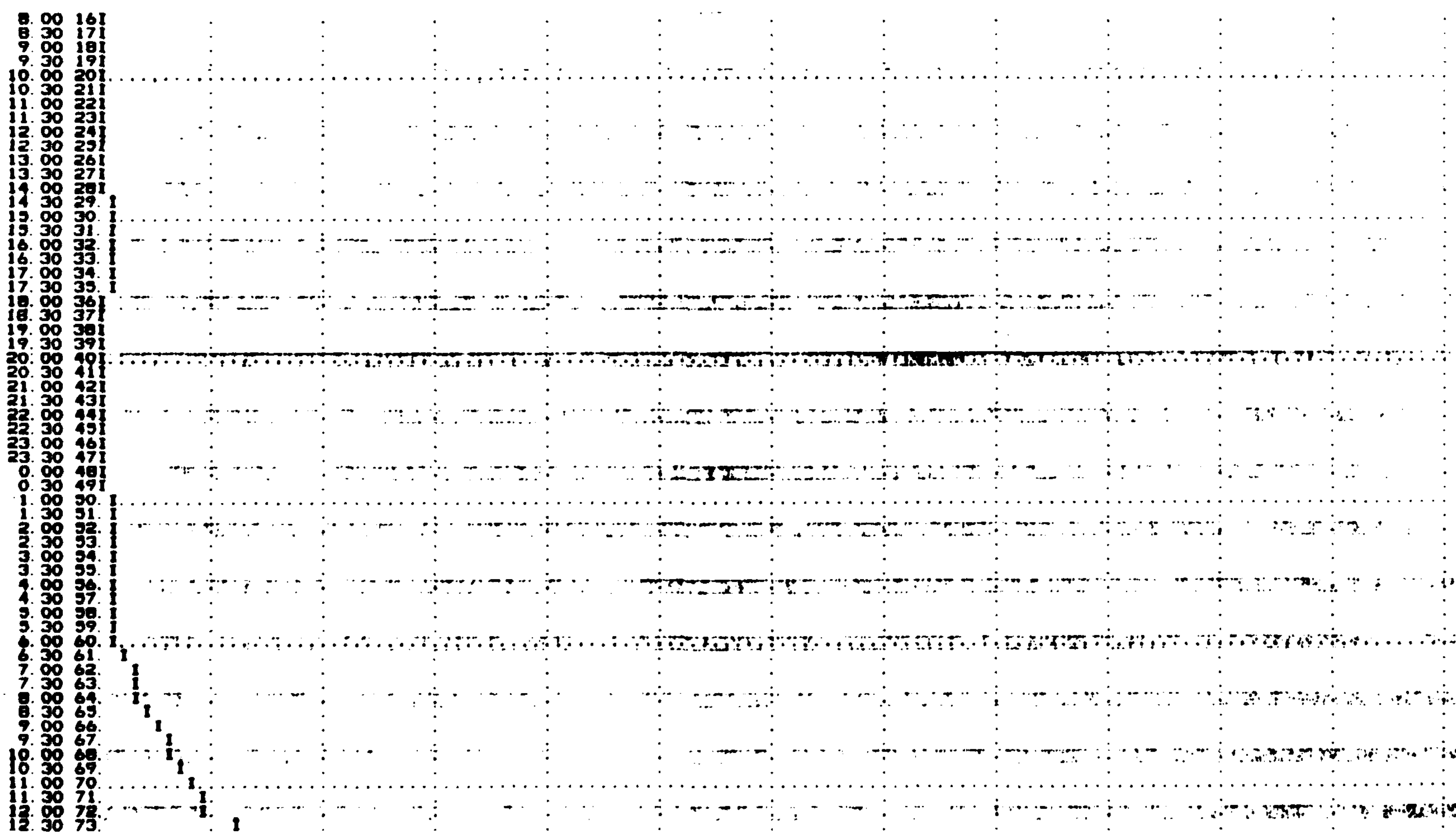
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14.30 29.
15.00 30.
15.30 31.
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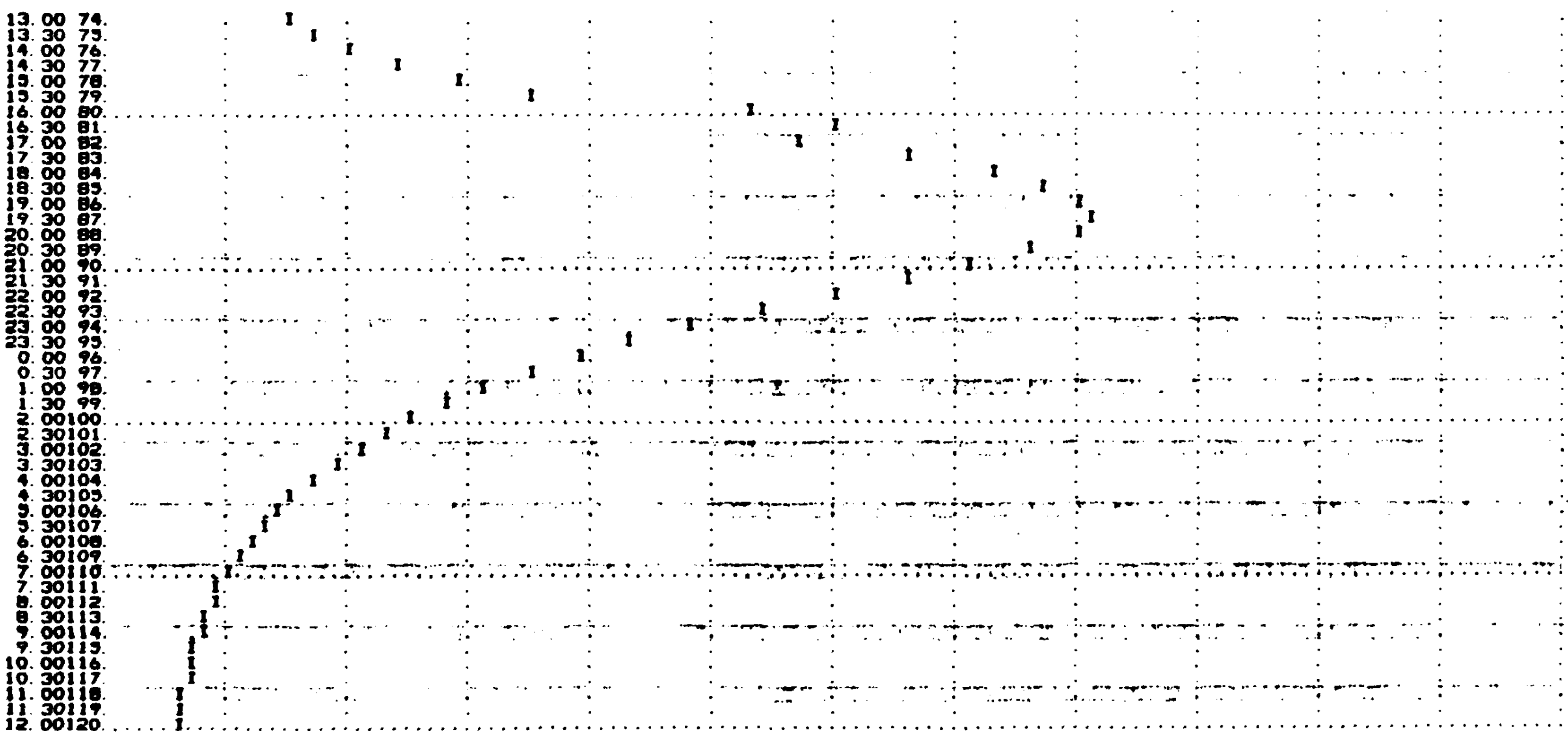

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 2

50.	53.	51.	49.	48.	46.	45.	44.	42.	41.
40.	39.	47.	55.	54.	53.	52.	51.	50.	50.
49.	48.	48.	47.	83.	118.	128.	138.	153.	168.
184.	397.	377.	162.	148.	135.	88.	63.	61.	59.

57.	54.	51.	49.	46.	44.	41.	39.	96.	166.
175.	188.	207.	229.	254.	280.	306.	330.	352.	372.
543.	742.	840.	982.	1168.	1390.	1632.	1880.	2121.	2348.
2556.	2744.	3535.	4431.	5075.	5928.	7096.	8504.	10154.	15378.
17423.	16607.	19036.	21240.	22416.	23208.	23523.	23102.	22106.	20675.
19018.	17304.	15615.	14023.	12578.	11287.	10136.	9108.	8187.	7356.
6602.	5967.	5414.	4906.	4443.	4022.	3675.	3384.	3118.	2876.
2687.	2536.	2396.	2264.	2142.	2027.	1919.	1830.	1758.	1688.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	23523.	20396.	9629.	4039.	484731.
CMS	666.	578.	273.	114.	13726.
INCHES		2.33	4.40	4.62	4.62
MM		59.22	111.83	117.28	117.28
AC-FT		10114.	19099.	20030.	20030.
THOUS CU M		12475.	23559.	24707.	24707.

DVF

STATION 1

```
                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
              0.    4000.   8000.  12000.  16000.  20000.  24000.   0.   0.   0.   0.   0.   0.
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 1.00  21
 1.30  31
 2.00  41
 2.30  51
 3.00  61
 3.30  71
 4.00  81
 4.30  91
 5.00 101
 5.30 111
 6.00 121
 6.30 131
 7.00 141
 7.30 151
 8.00 161
 8.30 171
 9.00 181
 9.30 191
10.00 201
10.30 211
11.00 221
11.30 231
12.00 241
12.30 251
13.00 261
13.30 271
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18.00 361
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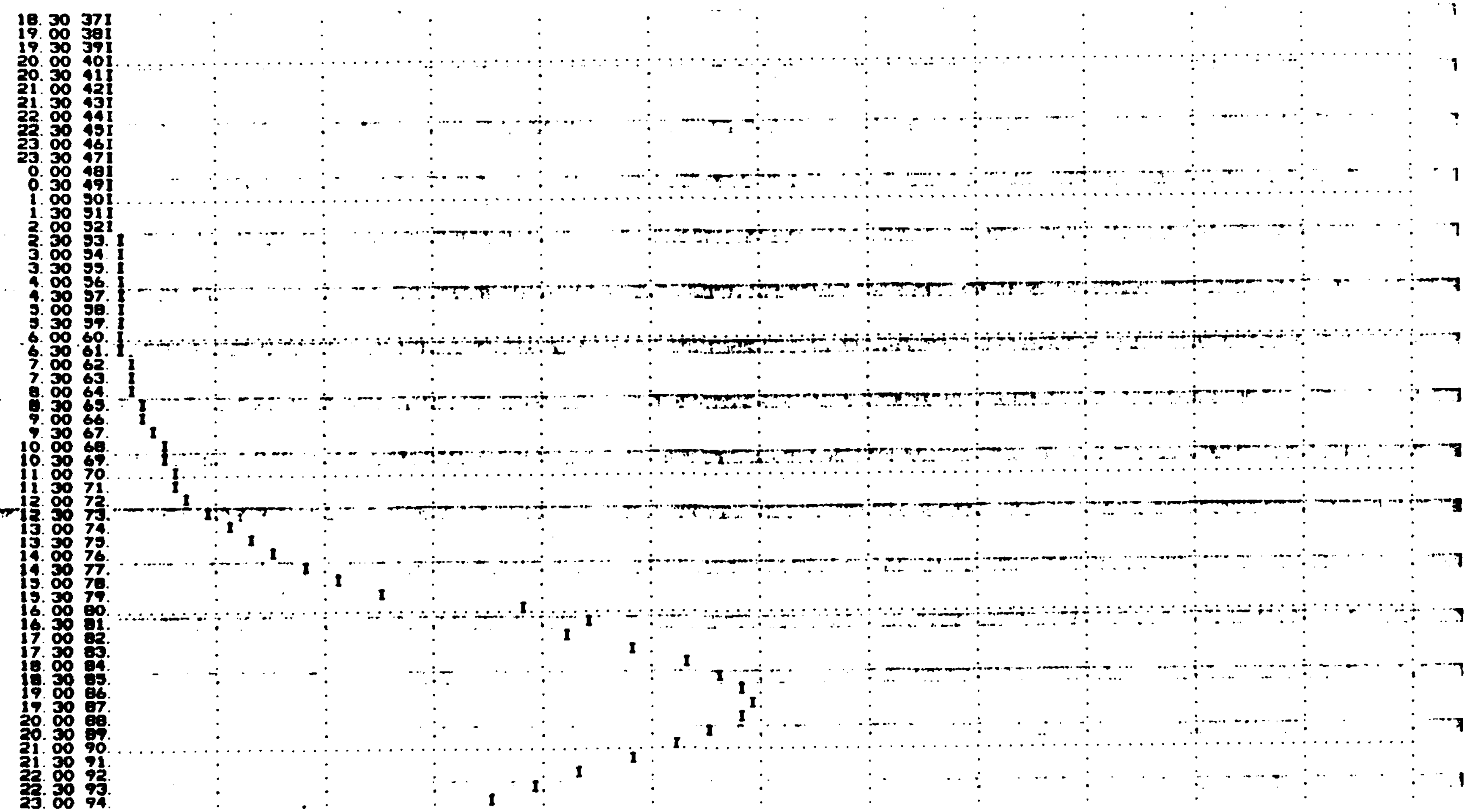
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23.30 47
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0.30 49
1.00 50
1.30 51
2.00 52
2.30 53.
3.00 54.
3.30 55.
4.00 56.
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
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11.30 71.
12.00 72.
12.30 73.
13.00 74.
13.30 75.
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14.30 77.
15.00 78.
15.30 79.
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16.30 81.
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19.00 86.
19.30 87.
20.00 88.
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21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.

```
23.30 95.                    .         I
 0.00 96.                    .       I
 0.30 97.                    .     I
 1.00 98.                    .   I
 1.30 99.                  I .
 2.00100. .............I..........................................................
 2.30101.            I
 3.00102.           I
 3.30103.          I
 4.00104.         I
 4.30105.        I
 5.00106.       I
 5.30107.      I
 6.00108.     I
 6.30109.     I
 7.00110. ...I....................................................................
 7.30111.    I
 8.00112.   I
 8.30113.   I
 9.00114.   I
 9.30115.  I
10.00116.  I
10.30117.  I
11.00118.  I
11.30119. I
12.00120. I...........................................................................
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 3

52.	55.	53.	51.	50.	48.	47.	45.	44.	43.
41.	40.	48.	56.	55.	54.	54.	53.	52.	51.
51.	50.	49.	49.	86.	122.	132.	143.	158.	174.
191.	411.	390.	167.	154.	139.	91.	65.	64.	61.
59.	56.	53.	50.	48.	45.	43.	40.	99.	172.
181.	194.	214.	237.	263.	290.	316.	342.	365.	385.
562.	768.	869.	1016.	1209.	1437.	1688.	1944.	2194.	2429.
2645.	2838.	3636.	4584.	5250.	6132.	7341.	8797.	10504.	15909.
18024.	17180.	19693.	21972.	23189.	24008.	24334.	23899.	22868.	21388.
19673.	17901.	16154.	14507.	13012.	11676.	10485.	9422.	8470.	7610.
6830.	6174.	5601.	5075.	4596.	4161.	3802.	3500.	3225.	2975.
2779.	2624.	2478.	2343.	2216.	2097.	1985.	1893.	1818.	1746.

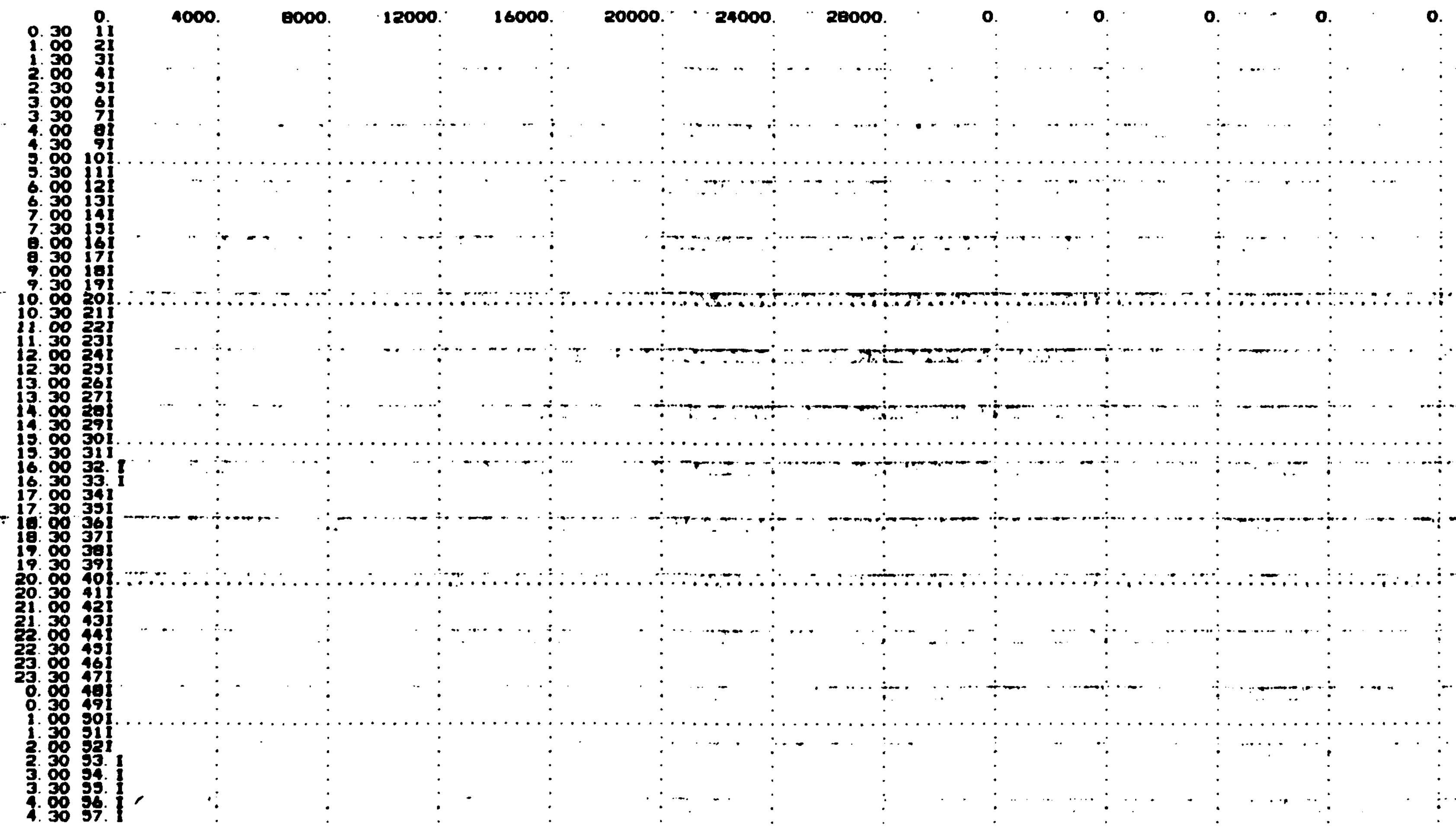
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	24334.	21100.	9961.	4179.	501446.
CMS	689.	597.	282.	118.	14199.
INCHES		2.41	4.55	4.78	4.78
MM		61.26	115.69	121.33	121.33
AC-FT		10463.	19738.	20721.	20721.
THOUS CU M		12905.	24371.	25559.	25559.

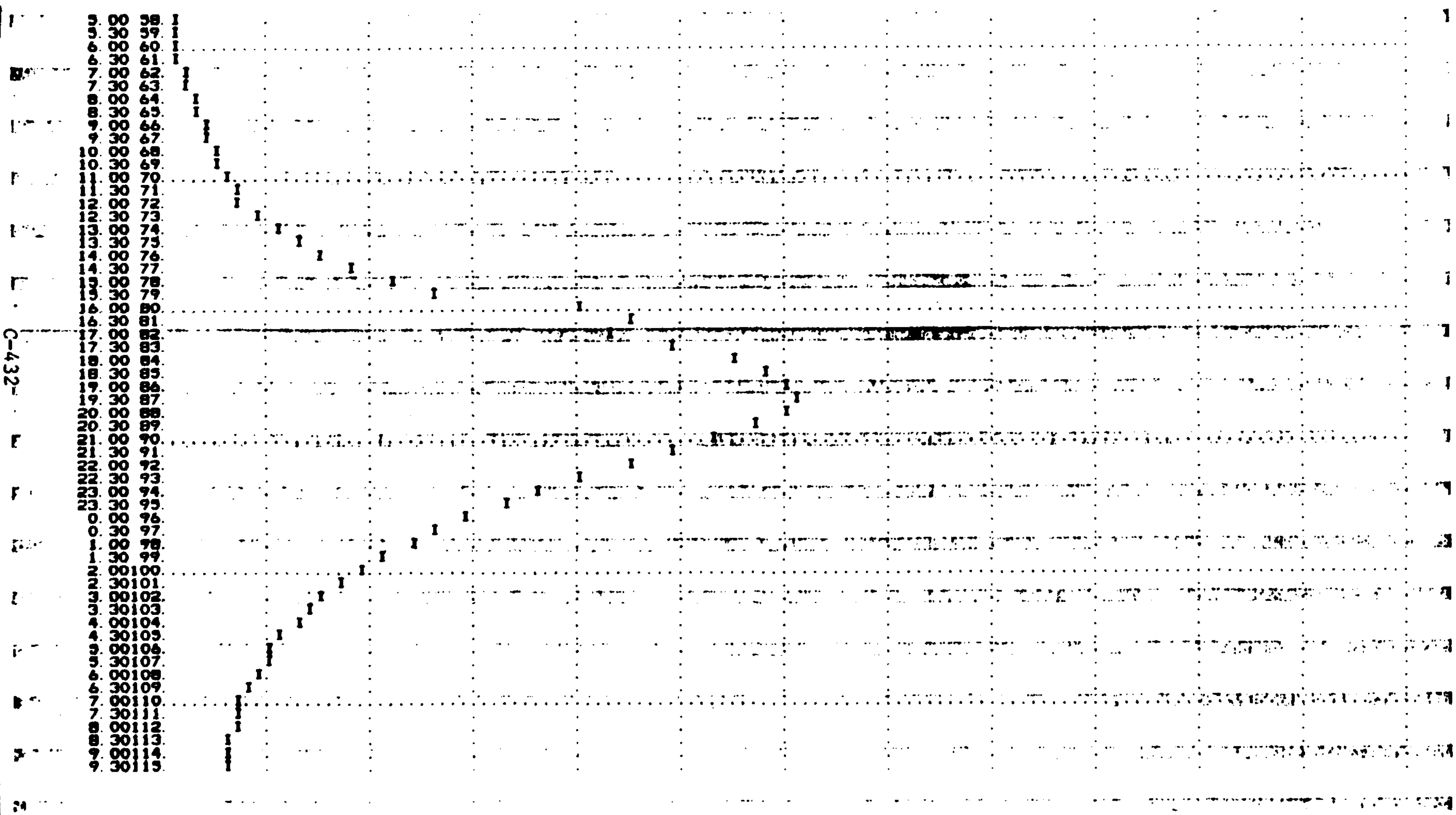
OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

FLAHERTY GIAVARA ASSOCIATES, P.C.

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8.30113.
9.00114.
9.30115.

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DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 4

53.	56.	55.	53.	51.	50.	48.	47.	45.	44.
43.	42.	50.	58.	57.	56.	55.	55.	54.	53.
52.	52.	51.	50.	88.	127.	137.	147.	163.	179.
197.	424.	403.	173.	159.	144.	94.	68.	66.	63.
61.	58.	55.	52.	49.	47.	44.	42.	102.	178.
187.	201.	221.	245.	272.	300.	327.	353.	377.	398.
580.	793.	898.	1050.	1249.	1485.	1744.	2009.	2267.	2510.
2733.	2933.	3778.	4737.	5425.	6336.	7585.	9091.	10854.	16439.
18625.	17752.	20349.	22705.	23962.	24809.	25145.	24695.	23630.	22101.
20329.	18498.	16692.	14990.	13446.	12065.	10835.	9736.	8752.	7864.
7057.	6380.	5787.	5244.	4749.	4299.	3929.	3617.	3333.	3074.
2872.	2711.	2561.	2421.	2289.	2167.	2052.	1957.	1879.	1804.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25145.	21803.	10293.	4318.	518161.
CMS	712.	617.	291.	122.	14673.
INCHES		2.49	4.71	4.94	4.94
MM		63.30	119.54	125.37	125.37
AC-FT		10811.	20416.	21412.	21412.
THOUS CU M		13336.	25183.	26411.	26411.

DVF

STATION 1

```
                  INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.     4000.    8000.   12000.   16000.   20000.   24000.   28000.     0.     0.     0.     0.     0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
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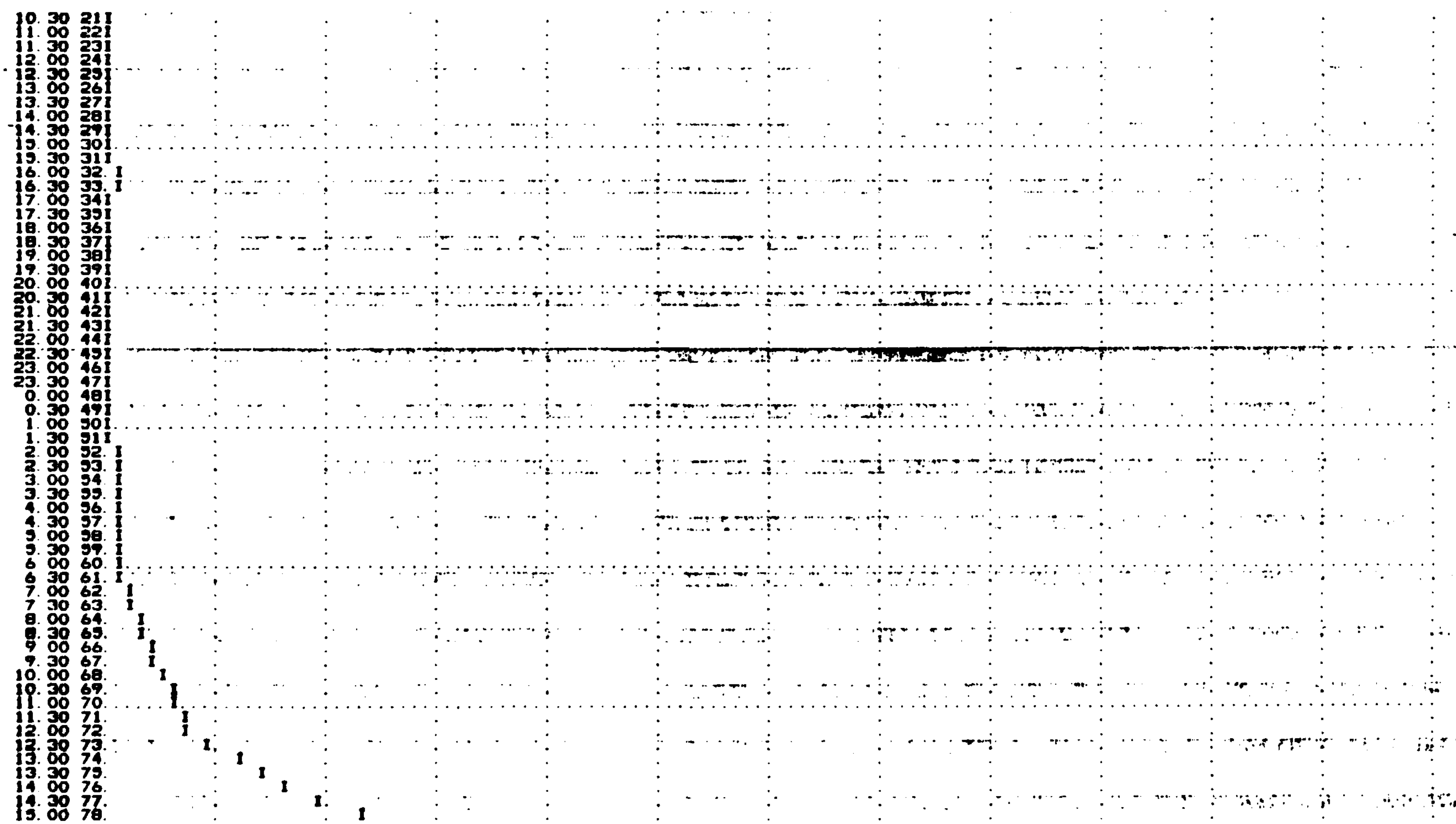
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16.00 32
16.30 33
17.00 34
17.30 35
18.00 36
18.30 37
19.00 38
19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
3.00 54
3.30 55
4.00 56
4.30 57
5.00 58
5.30 59
6.00 60
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8.00 64
8.30 65
9.00 66
9.30 67
10.00 68
10.30 69
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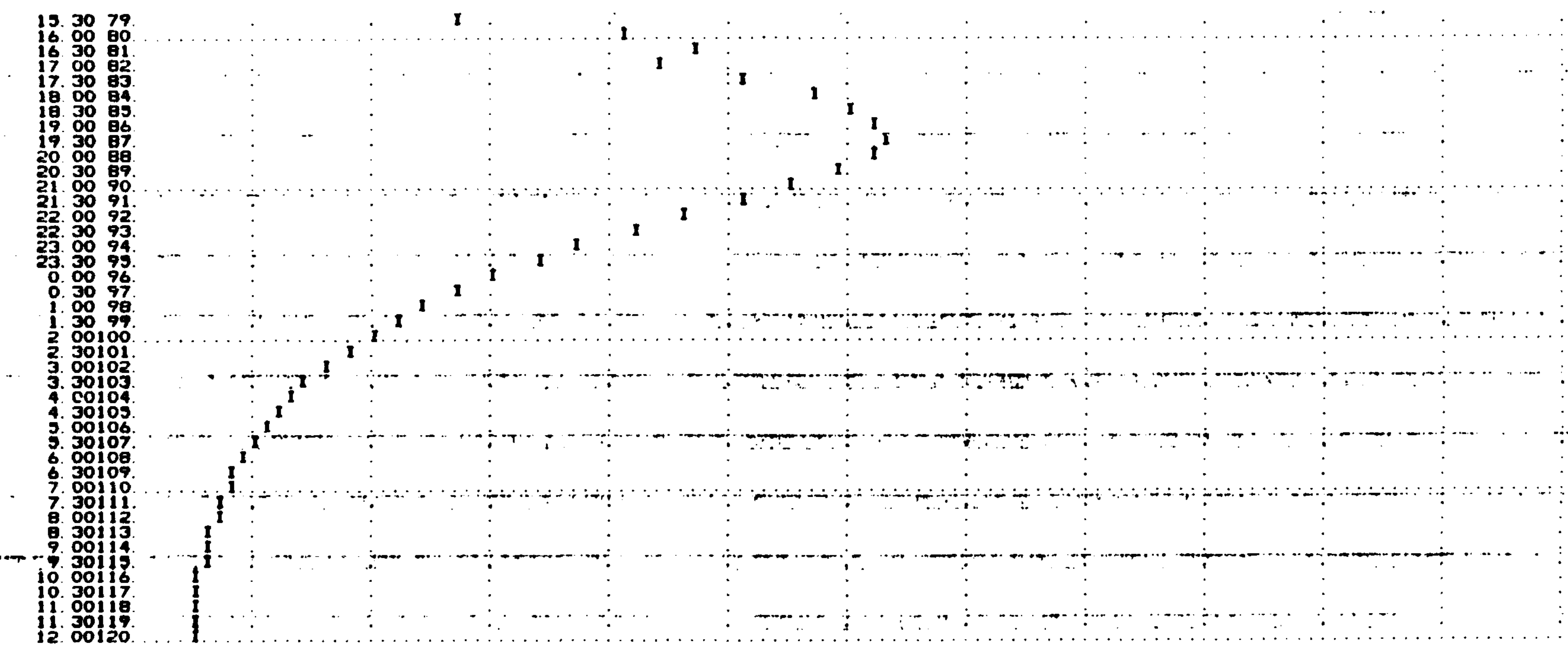
13.30 75
14.00 76
14.30 77
15.00 78



OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

55.	58.	56.	55.	53.	51.	50.	48.	47.	46.
44.	43.	52.	60.	59.	58.	57.	56.	56.	55.
54.	53.	53.	52.	91.	131.	141.	152.	169.	185.
203.	438.	416.	179.	164.	149.	97.	70.	68.	65.
63.	60.	57.	54.	51.	48.	45.	43.	106.	183.
193.	207.	228.	253.	281.	309.	338.	364.	389.	411.
599.	819.	927.	1084.	1289.	1533.	1801.	2074.	2340.	2591.
2821.	3027.	3900.	4889.	5600.	6541.	7830.	9384.	11204.	16769.
19226.	18325.	21005.	23437.	24735.	25609.	25956.	25492.	24393.	22814.

20985.	19095.	17231.	15474.	13880.	12455.	11184.	10050.	9034.	8117.
7285.	6586.	5974.	5413.	4902.	4438.	4055.	3734.	3440.	3174.
2965.	2799.	2644.	2499.	2363.	2236.	2118.	2020.	1939.	1862.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	25956.	22506.	10625.	4457.	534875.
CMS	735.	637.	301.	126.	15146.
INCHES		2.57	4.86	5.10	5.10
MM		65.34	123.40	129.41	129.41
AC-FT		11160.	21075.	22102.	22102.
THOUS CU M		13766.	25996.	27263.	27263.

```
#DVF#
                                   STATION     1

                      INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
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   1.00   2I
   1.30   3I
   2.00   4I
   2.30   5I
   3.00   6I
   3.30   7I
   4.00   8I
   4.30   9I
   5.00  10I
   5.30  11I
   6.00  12I
   6.30  13I
   7.00  14I
   7.30  15I
   8.00  16I
   8.30  17I
   9.00  18I
   9.30  19I
  10.00  20I
  10.30  21I
  11.00  22I
  11.30  23I
  12.00  24I
  12.30  25I
  13.00  26I
  13.30  27I
  14.00  28I
  14.30  29I
  15.00  30I
  15.30  31 I
  16.00  32. I
  16.30  33. I
  17.00  34I
  17.30  35I
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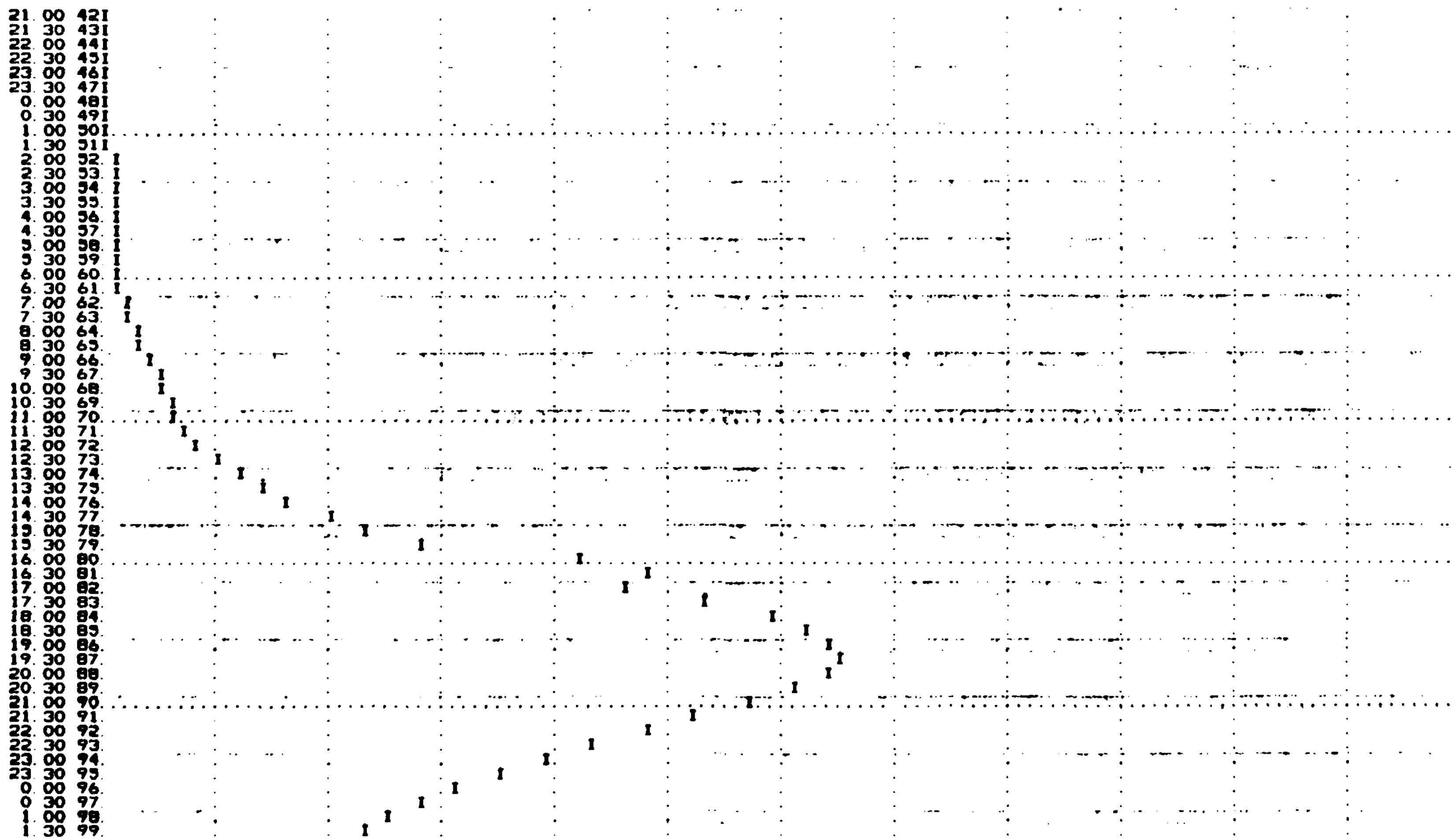
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2.30 53.
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3.30 55.
4.00 56.
4.30 57.
5.00 58.
5.30 59.
6.00 60.
6.30 61.
7.00 62.
7.30 63.
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8.30 65.
9.00 66.
9.30 67.
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10.30 69.
11.00 70.
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12.30 73.
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20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.

```
  2.00100.......................I..................................................................
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  3.00102.                   I
  3.30103.                  I
  4.00104.                 I
  4.30105.               I
  5.00106.              I
  5.30107.             I
  6.00108.            I
  6.30109.            I
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  7.30111.         I
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  8.30113.         I
  9.00114.        I
  9.30115.        I
 10.00116.        I
 10.30117.       I
 11.00118.       I
 11.30119.       I
 12.00120.......I...........................................................................
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 6

57.	60.	58.	56.	55.	53.	51.	50.	48.	47.
46.	44.	53.	62.	61.	60.	59.	58.	57.	57.
56.	55.	54.	54.	94.	135.	146.	157.	174.	191.
210.	452.	429.	184.	169.	153.	100.	72.	70.	67.
65.	62.	58.	55.	52.	50.	47.	44.	109.	189.
199.	214.	235.	261.	289.	319.	348.	376.	401.	424.
618.	844.	956.	1118.	1330.	1581.	1857.	2139.	2413.	2672.
2909.	3122.	4022.	5042.	5775.	6745.	8075.	9677.	11554.	17499.
19827.	18898.	21662.	24170.	25508.	26409.	26767.	26288.	25155.	23527.
21641.	19691.	17769.	15957.	14313.	12844.	11533.	10364.	9317.	8371.
7513.	6792.	6161.	5583.	5055.	4577.	4182.	3850.	3548.	3273.
3057.	2886.	2726.	2577.	2437.	2306.	2184.	2083.	2000.	1921.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	26767.	23209.	10957.	4597.	551590.
CMS	758.	657.	310.	130.	15619.
INCHES		2.65	5.01	5.25	5.25
MM		67.39	127.25	133.46	133.46
AC-FT		11509.	21734.	22793.	22793.
THOUS CU M		14196.	26808.	28115.	28115.

OVF

STATION 1

```
                        INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.    4000.    8000.   12000.   16000.   20000.   24000.   28000.      0.      0.      0.      0.      0.
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  1.00     2I
  1.30     3I
  2.00     4I
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2.30	5I	
3.00	6I	
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7.30	15I	
8.00	16I	
8.30	17I	
9.00	18I	
9.30	19I	
10.00	20I	
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11.00	22I	
11.30	23I	
12.00	24I	
12.30	25I	
13.00	26I	
13.30	27I	
14.00	28I	
14.30	29I	
15.00	30I	
15.30	31.	I
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16.30	33.	I
17.00	34I	
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18.30	37I	
19.00	38I	
19.30	39I	
20.00	40I	
20.30	41I	
21.00	42I	
21.30	43I	
22.00	44I	
22.30	45I	
23.00	46I	
23.30	47I	
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0.30	49I	
1.00	50I	
1.30	51I	
2.00	52.	I
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5.30	59.	I
6.00	60.	I
6.30	61.	I
7.00	62.	I

7.30 63.
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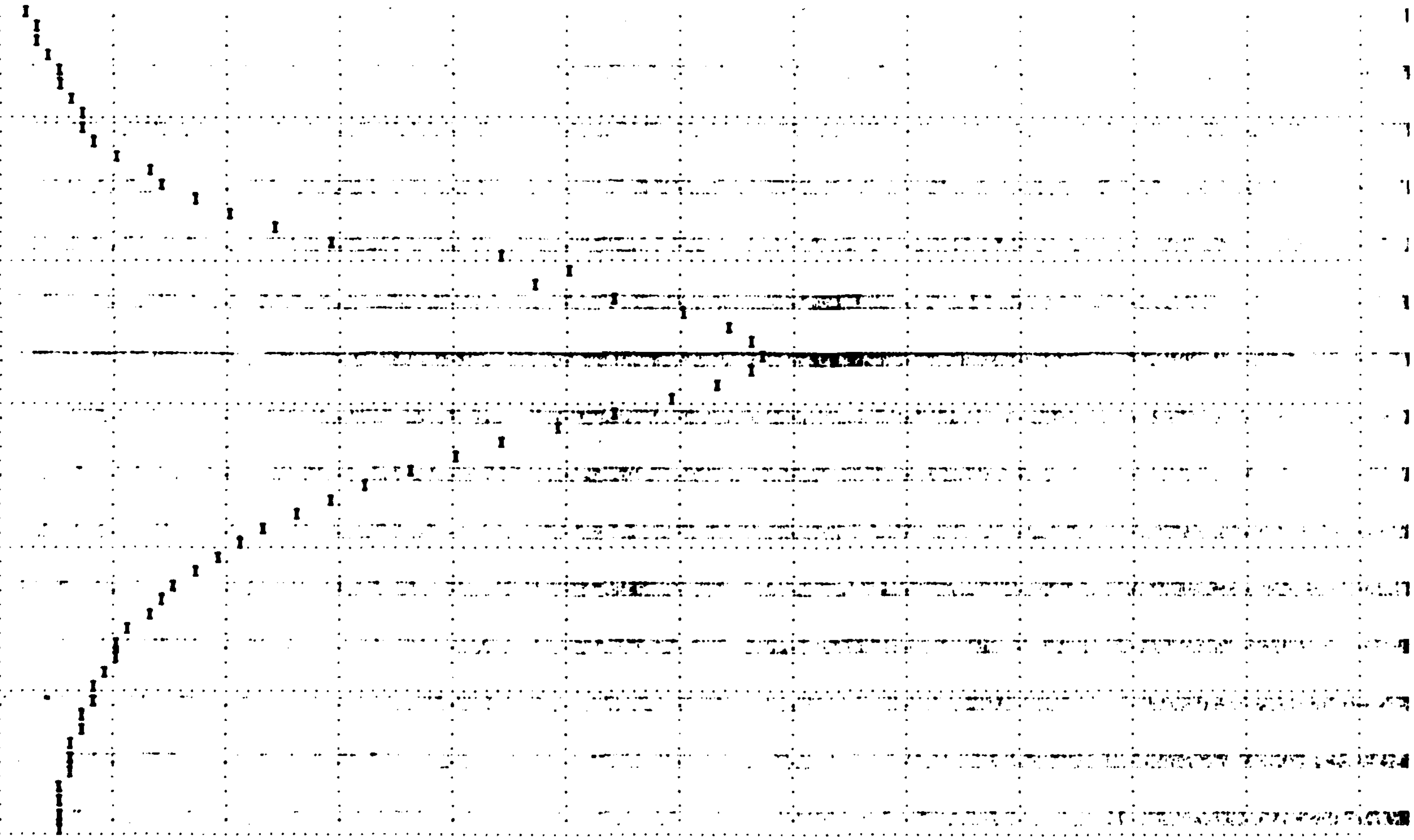

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 7

59.	62.	60.	58.	56.	54.	53.	51.	50.	48.
47.	46.	55.	64.	63.	62.	61.	60.	59.	58.
58.	57.	56.	55.	97.	139.	150.	162.	179.	197.
216.	465.	442.*	190.	174.	158.	103.	74.	72.	69.
67.	63.	60.	57.	54.	51.	48.	46.	112.	195.
209.	220.	242.	269.	298.	329.	359.	387.	413.	437.
637.	870.	985.	1152.	1370.	1629.	1913.	2204.	2487.	2753.
2997.	3217.	4144.	5195.	5950.	6950.	8319.	9970.	11904.	18030.
20427.	19470.	22318.	24902.	26281.	27209.	27579.	27085.	25917.	24240.
22296.	20288.	18307.	16441.	14747.	13233.	11883.	10678.	9599.	8625.
7740.	6998.	6347.	5752.	5209.	4715.	4309.	3967.	3655.	3372.
3150.	2973.	2809.	2655.	2511.	2376.	2250.	2146.	2061.	1979.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	27579.	23913.	11289.	4736.	568305.
CMS	781.	677.	320.	134.	16093.
INCHES		2.73	5.16	5.41	5.41
MM		69.43	131.11	137.90	137.90
AC-FT		11858.	22392.	23484.	23484.
THOUS CU M		14626.	27620.	28967.	28967.

DVF

STATION 1

```
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
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 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
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12.30  25I
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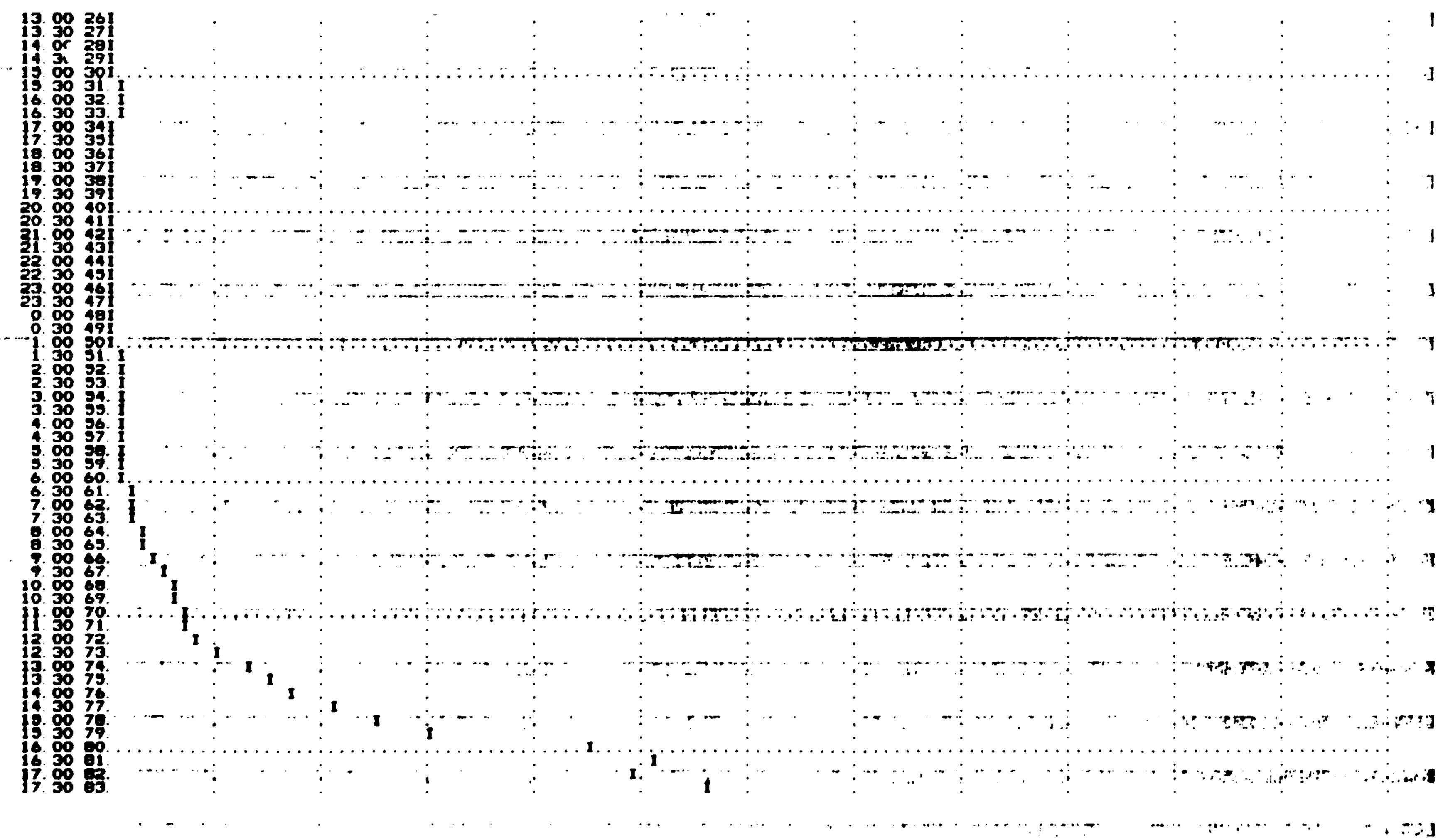
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19.30 39
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20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
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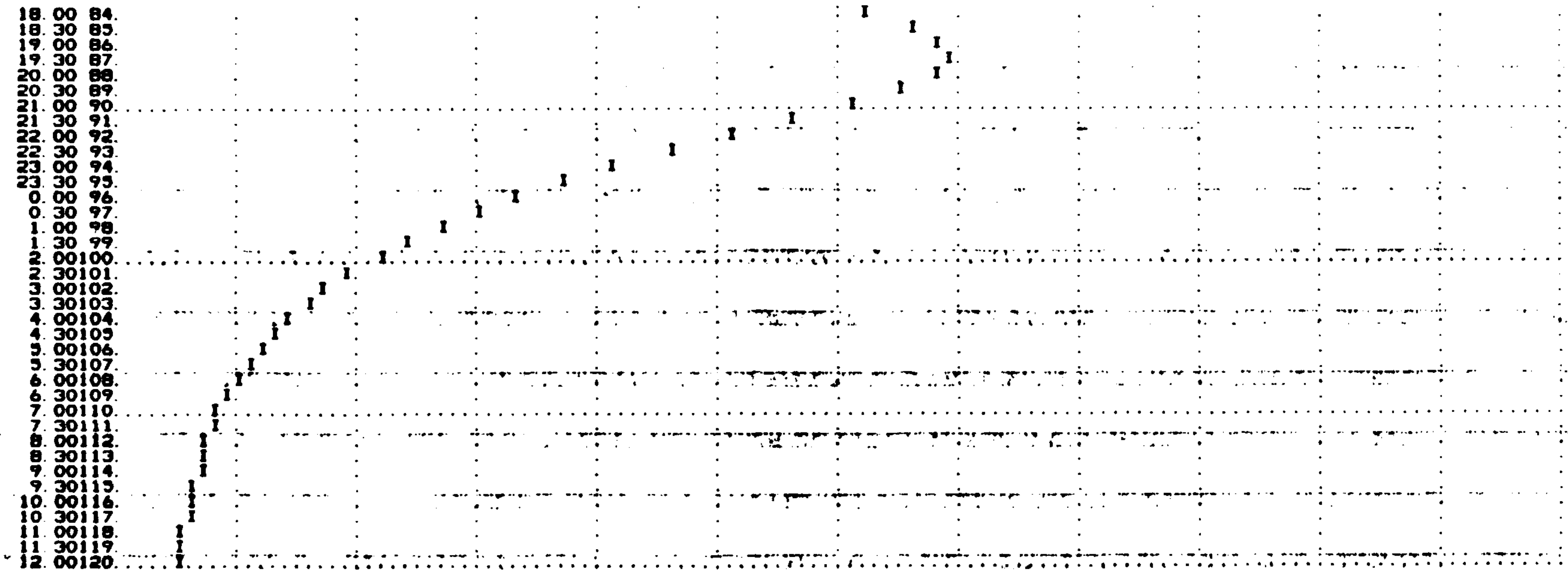
17.30 83



DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 8

86.	71.	88.	85.	83.	80.	78.	75.	73.	71.
69.	67.	81.	94.	92.	91.	89.	88.	87.	86.
85.	83.	82.	81.	143.	204.	221.	238.	263.	289.
318.	684.	650.	279.	256.	232.	152.	109.	106.	102.
98.	93.	88.	84.	79.	75.	71.	67.	165.	287.
301.	324.	356.	395.	438.	483.	527.	569.	608.	642.
936.	1279.	1448.	1694.	2015.	2376.	2814.	3241.	3657.	4049.
4408.	4730.	6094.	7640.	8750.	10220.	12234.	14662.	17507.	26514.
30040.	28633.	32821.	36621.	38649.	40014.	40557.	39831.	38113.	35647.
32789.	29835.	26923.	24178.	21687.	19460.	17475.	15703.	14116.	12683.
11383.	10291.	9334.	8459.	7660.	6934.	6336.	5834.	5376.	4959.
4632.	4373.	4131.	3904.	3693.	3494.	3309.	3156.	3030.	2910.

PEAK 6-HOUR 24-HOUR 72-HOUR TOTAL VOLUME

CFS	40557.	35166.	16602.	6965.	835742.
CMS	1148.	996.	470.	197.	23666.
INCHES		4.02	7.59	7.96	7.96
MM		102.10	192.81	202.21	202.21
AC-FT		17438.	32930.	34535.	34535.
THOUS CU M		21509.	40618.	42598.	42598.

OVF

STATION 1

```
                INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.    32000.    36000.    40000.    44000.        0.
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
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 8.30  17I
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10.00  20I
10.30  21I
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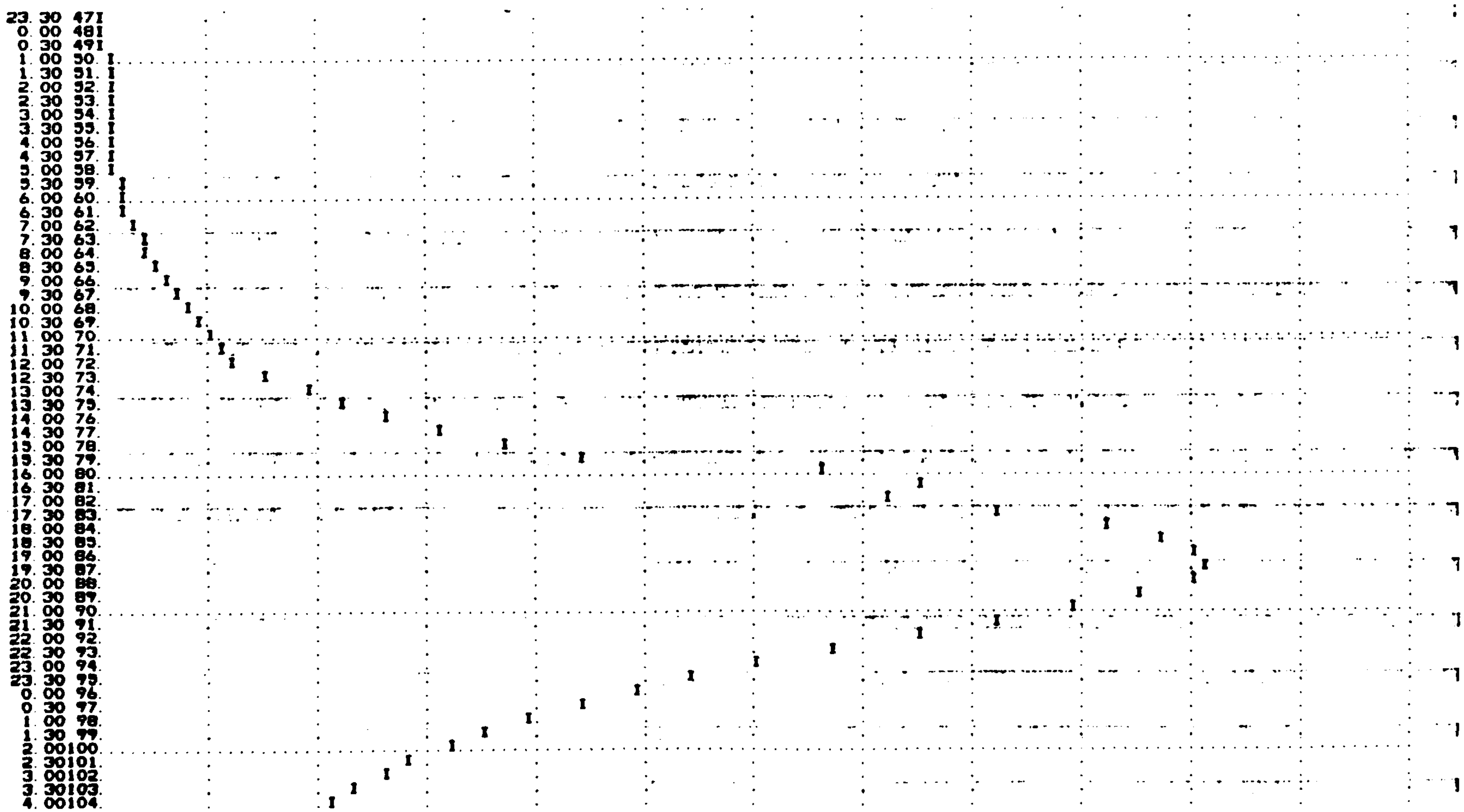
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10.00116.          I.
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11.00118.        I
11.30119.        I
12.00120. .....I..................
```

OVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 9

172.	182.	176.	171.	165.	160.	155.	151.	147.	142.
138.	134.	161.	188.	185.	182.	179.	178.	174.	171.
169.	167.	165.	163.	285.	408.	441.	475.	527.	579.
636.	1369.	1300.	558.	512.	465.	304.	218.	212.	204.
196.	186.	177.	168.	159.	150.	142.	135.	330.	573.
602.	648.	712.	790.	877.	967.	1055.	1138.	1219.	1284.
1872.	2559.	2896.	3387.	4029.	4792.	5627.	6481.	7313.	8098.
8815.	9461.	12188.	15279.	17499.	20440.	24468.	29325.	35013.	53029.
60081.	57266.	65642.	73241.	77297.	80028.	81113.	79662.	76227.	71295.
65578.	59670.	53846.	48356.	43374.	38921.	34950.	31407.	28232.	25367.
22766.	20581.	18668.	16917.	15319.	13869.	12673.	11668.	10751.	9917.
9264.	8746.	8261.	7808.	7385.	6989.	6618.	6312.	6061.	5820.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	81113.	70332.	33204.	13929.	1671485.
CMS	2297.	1992.	940.	394.	47331.
INCHES		8.04	15.18	15.92	15.92
MM		204.20	385.62	404.42	404.42
AC-FT		34875.	65860.	69070.	69070.
THOUS CU M		43018.	81236.	85196.	85196.

OVF

STATION 1

```
                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.    10000.   20000.   30000.   40000.   50000.   60000.   70000.   80000.   90000.    0.    0.    0.
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 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
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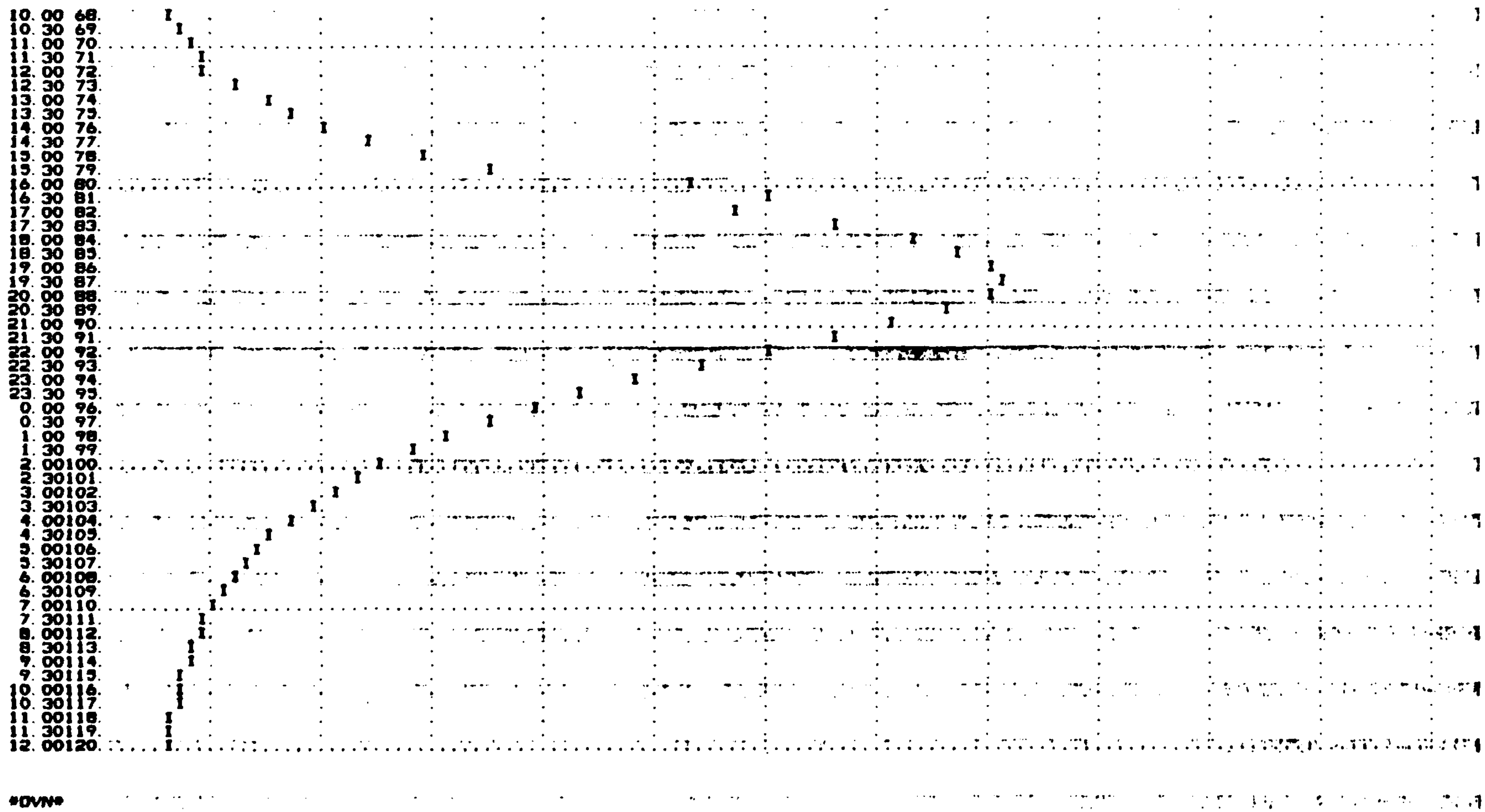
5.00	10
5.30	11
6.00	12
6.30	13
7.00	14
7.30	15
8.00	16
8.30	17
9.00	18
9.30	19
10.00	20
10.30	21
11.00	22
11.30	23
12.00	24
12.30	25
13.00	26
13.30	27
14.00	28
14.30	29.
15.00	30.
15.30	31.
16.00	32.
16.30	33.
17.00	34.
17.30	35.
18.00	36
18.30	37
19.00	38
19.30	39
20.00	40
20.30	41
21.00	42
21.30	43
22.00	44
22.30	45
23.00	46
23.30	47
0.00	48
0.30	49
1.00	50.
1.30	51.
2.00	52.
2.30	53.
3.00	54.
3.30	55.
4.00	56.
4.30	57.
5.00	58.
5.30	59.
6.00	60.
6.30	61.
7.00	62.
7.30	63.
8.00	64.
8.30	65.
9.00	66.
9.30	67.


10.00 68.
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11.00 70.
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14.30 77.
15.00 78.
15.30 79.
16.00 80.
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
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7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.
#DVN#

********** ********** ********** ********** **********

HYDROGRAPH ROUTING

OTSEGO LAKE ROUTING - MODIFIED PULS METHOD

ISTAQ	ICOMP	IECON	ITAPE	JPLT	JPRT	INAME	ISTAGE	IAUTO
1	1	0	0	0	0	1	0	0

ROUTING DATA

QLOSS	CLOSS	AVG	IRES	ISAME	IOPT	IPMP		LSTR
0.0	0.000	0.00	1	1	0	0		0

NSTPS	NSTDL	LAG	AMSKK	X	TSK	STORA	ISPRAT
1	0	0	0.000	0.000	0.000	0.	-1

STAGE	1190.00	1190.50	1191.00	1191.50	1192.00	1192.20	1192.50	1192.80	1192.90	1193.00
	1193.10	1193.50	1194.00	1194.20	1195.00	1200.00	1208.00	1210.00		
FLOW	0.00	25.40	171.80	313.50	485.80	560.40	678.90	732.20	783.30	812.70
	857.50	1052.80	1317.30	1428.10	1897.20	5611.00	13734.10	16108.50		

CAPACITY=	20440.	27400.	39800.	112820.
ELEVATION=	1190.	1192.	1194.	1220.

CREL	SPWID	COQW	EXPW	ELEVL	COQL	CAREA	EXPL
1190.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

DAM DATA

TOPEL	COQD	EXPD	DAMWID
1194.2	2.5	1.5	2.

STATION 1, PLAN 1, RATIO 1

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	2.	2.	2.	2.	2.
2.	2.	3.	3.	3.	4.	4.	5.	5.	6.
7.	8.	9.	10.	12.	13.	16.	18.	21.	26.
58.	90.	124.	162.	203.	245.	288.	334.	380.	423.
462.	498.	533.	565.	594.	620.	643.	664.	680.	687.
694.	699.	704.	709.	712.	716.	719.	721.	724.	726.
728.	729.	731.	732.	735.	738.	741.	743.	745.	747.

STORAGE

20441.	20442.	20443.	20444.	20445.	20446.	20447.	20448.	20450.	20451.
20452.	20453.	20454.	20455.	20456.	20457.	20458.	20459.	20460.	20461.
20462.	20463.	20464.	20465.	20467.	20469.	20472.	20475.	20478.	20482.
20487.	20494.	20505.	20512.	20516.	20520.	20522.	20523.	20524.	20525.
20526.	20527.	20528.	20529.	20530.	20531.	20532.	20533.	20535.	20538.
20542.	20546.	20552.	20557.	20563.	20571.	20578.	20587.	20596.	20606.

20618.	20636.	20659.	20684.	20714.	20750.	20793.	20841.	20898.	20960.
21029.	21104.	21192.	21305.	21439.	21596.	21780.	22001.	22266.	22628.
23093.	23574.	24077.	24644.	25257.	25897.	26551.	27202.	27831.	28423.
28971.	29468.	29915.	30314.	30668.	30983.	31261.	31508.	31725.	31918.
32088.	32238.	32370.	32488.	32592.	32683.	32762.	32832.	32893.	32948.
32997.	33041.	33081.	33117.	33148.	33176.	33202.	33224.	33244.	33261.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.2	1190.2	1190.2	1190.2	1190.3	1190.3	1190.4	1190.4	1190.5
1190.6	1190.7	1190.8	1191.0	1191.1	1191.3	1191.4	1191.6	1191.7	1191.8
1191.9	1192.0	1192.1	1192.2	1192.3	1192.4	1192.4	1192.5	1192.5	1192.5
1192.6	1192.6	1192.6	1192.7	1192.7	1192.7	1192.7	1192.7	1192.8	1192.8
1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8	1192.8

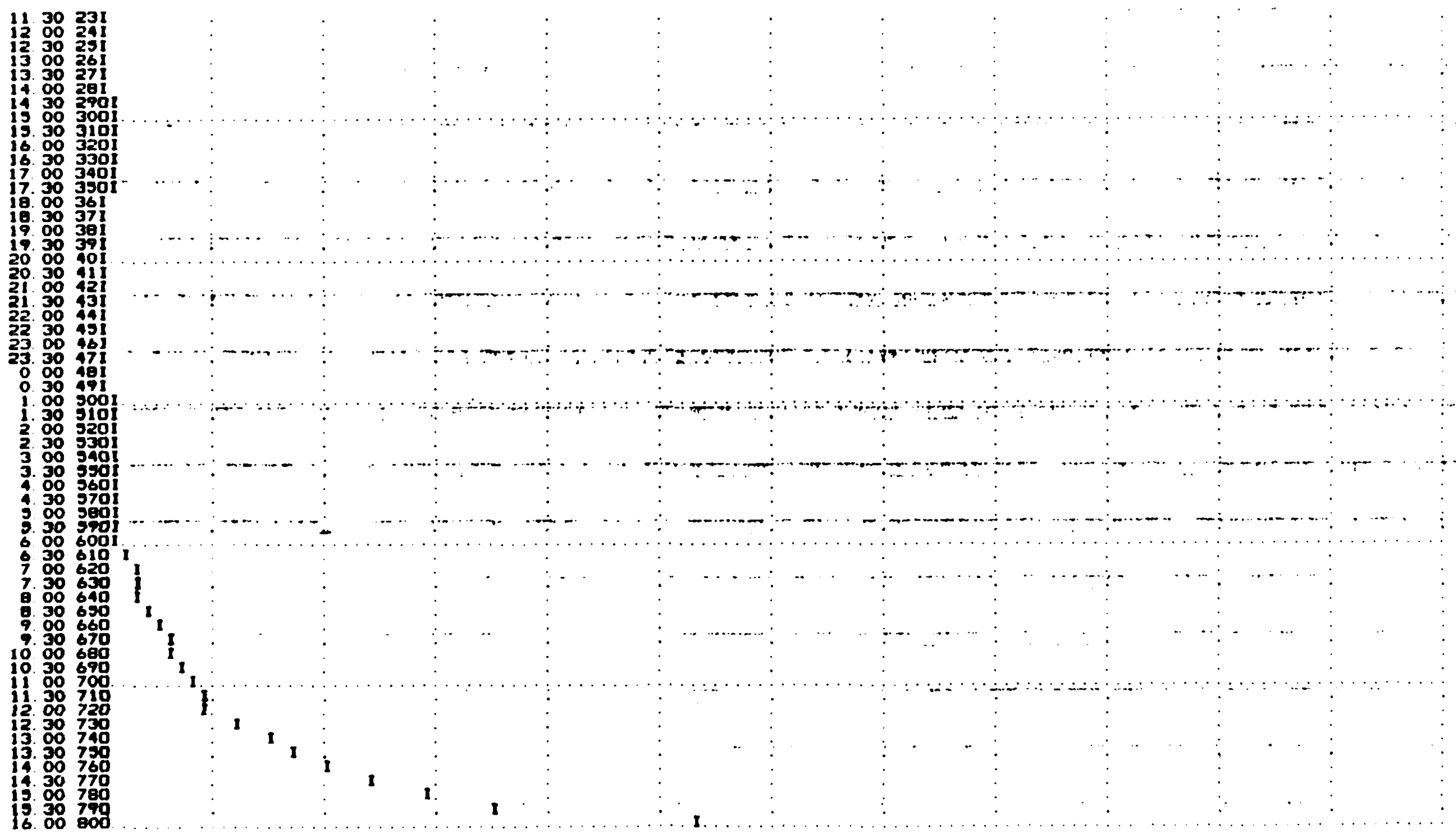
PEAK OUTFLOW IS 747. AT TIME 60.00 HOURS

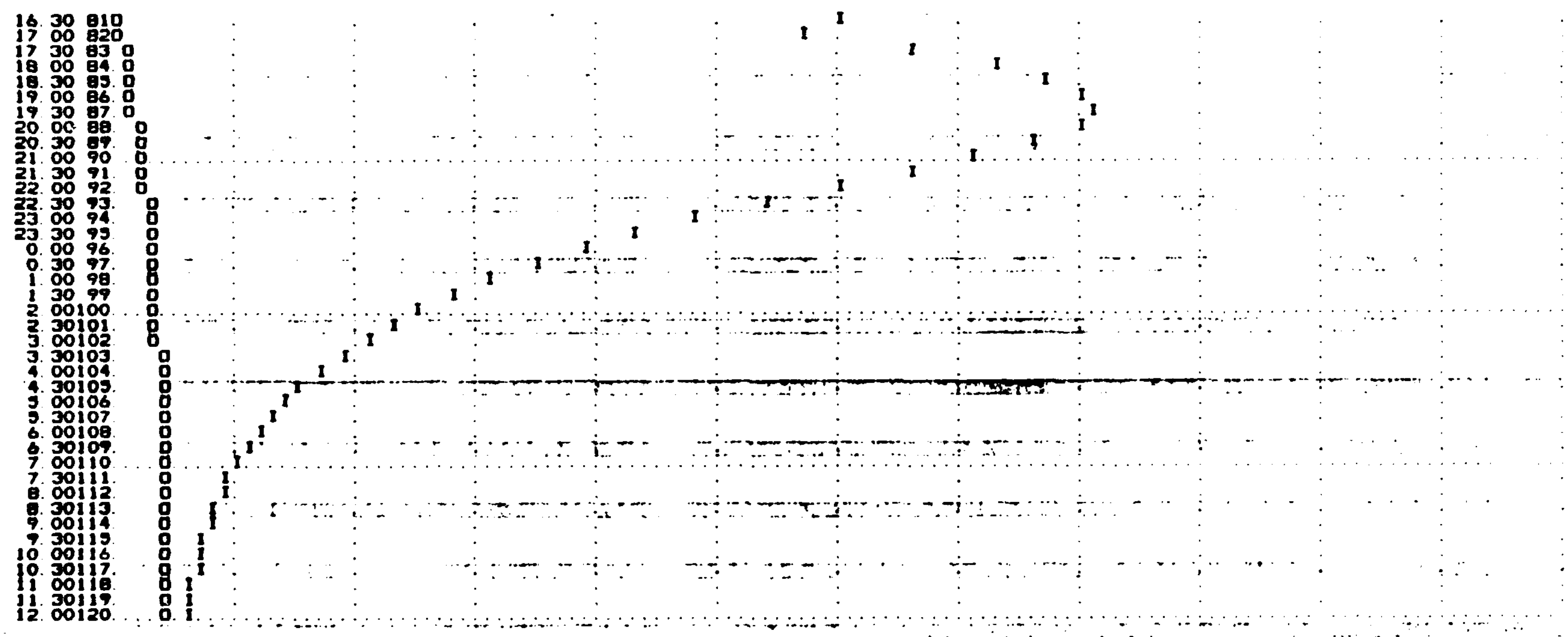
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	747.	734.	469.	188.	[illegible]
CMS	21.	21.	13.	5.	640.
INCHES		0.08	0.21	0.22	0.22
MM		2.13	5.44	5.46	5.46
AC-FT		364.	930.	933.	933.
THOUS CU M		449.	1147.	1151.	1151.

OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.     2000.    4000.    6000.    8000.   10000.   12000.   14000.   16000.   18000.    0.    0.    0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
```


11.30 23
12.00 24
12.30 25
13.00 26
13.30 27
14.00 28
14.30 290
15.00 300
15.30 310
16.00 320
16.30 330
17.00 340
17.30 350
18.00 36
18.30 37
19.00 38
19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 500
1.30 510
2.00 520
2.30 530
3.00 540
3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800



DVN

STATION 1, PLAN 1, RATIO 2

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
1.	1.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	3.	3.	3.
3.	3.	4.	4.	5.	5.	6.	7.	8.	9.
10.	11.	13.	15.	17.	20.	23.	32.	57.	93.

FLAHERTY GIAVARA ASSOCIATES, P.C.

138.	185.	233.	287.	351.	417.	485.	558.	633.	690.
720.	774.	820.	876.	928.	975.	1016.	1052.	1086.	1117.
1143.	1167.	1188.	1206.	1221.	1235.	1247.	1257.	1266.	1274.
1281.	1287.	1293.	1297.	1301.	1304.	1306.	1308.	1310.	1311.

STORAGE

20441.	20443.	20445.	20446.	20447.	20448.	20450.	20451.	20452.	20453.
20454.	20455.	20456.	20457.	20459.	20461.	20463.	20464.	20465.	20467.
20468.	20469.	20470.	20471.	20473.	20476.	20480.	20486.	20491.	20497.
20504.	20515.	20531.	20542.	20547.	20553.	20557.	20559.	20561.	20563.
20565.	20567.	20569.	20570.	20571.	20572.	20573.	20574.	20576.	20581.
20588.	20594.	20601.	20610.	20619.	20630.	20642.	20655.	20668.	20682.
20700.	20726.	20758.	20795.	20838.	20890.	20952.	21024.	21106.	21197.
21298.	21407.	21535.	21699.	21894.	22120.	22388.	22709.	23092.	23616.
24288.	24984.	25711.	26532.	27421.	28347.	29293.	30234.	31143.	31999.
32790.	33509.	34155.	34732.	35244.	35697.	36097.	36451.	36763.	37038.
37279.	37491.	37677.	37840.	37982.	38106.	38213.	38306.	38388.	38459.
38520.	38575.	38623.	38665.	38702.	38728.	38749.	38766.	38781.	38794.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7
1190.9	1191.0	1191.2	1191.4	1191.6	1191.8	1192.0	1192.2	1192.4	1192.6
1192.7	1192.9	1193.0	1193.1	1193.2	1193.3	1193.4	1193.5	1193.6	1193.6
1193.7	1193.7	1193.8	1193.8	1193.8	1193.8	1193.9	1193.9	1193.9	1193.9
1193.9	1193.9	1194.0	1194.0	1194.0	1194.0	1194.0	1194.0	1194.0	1194.0

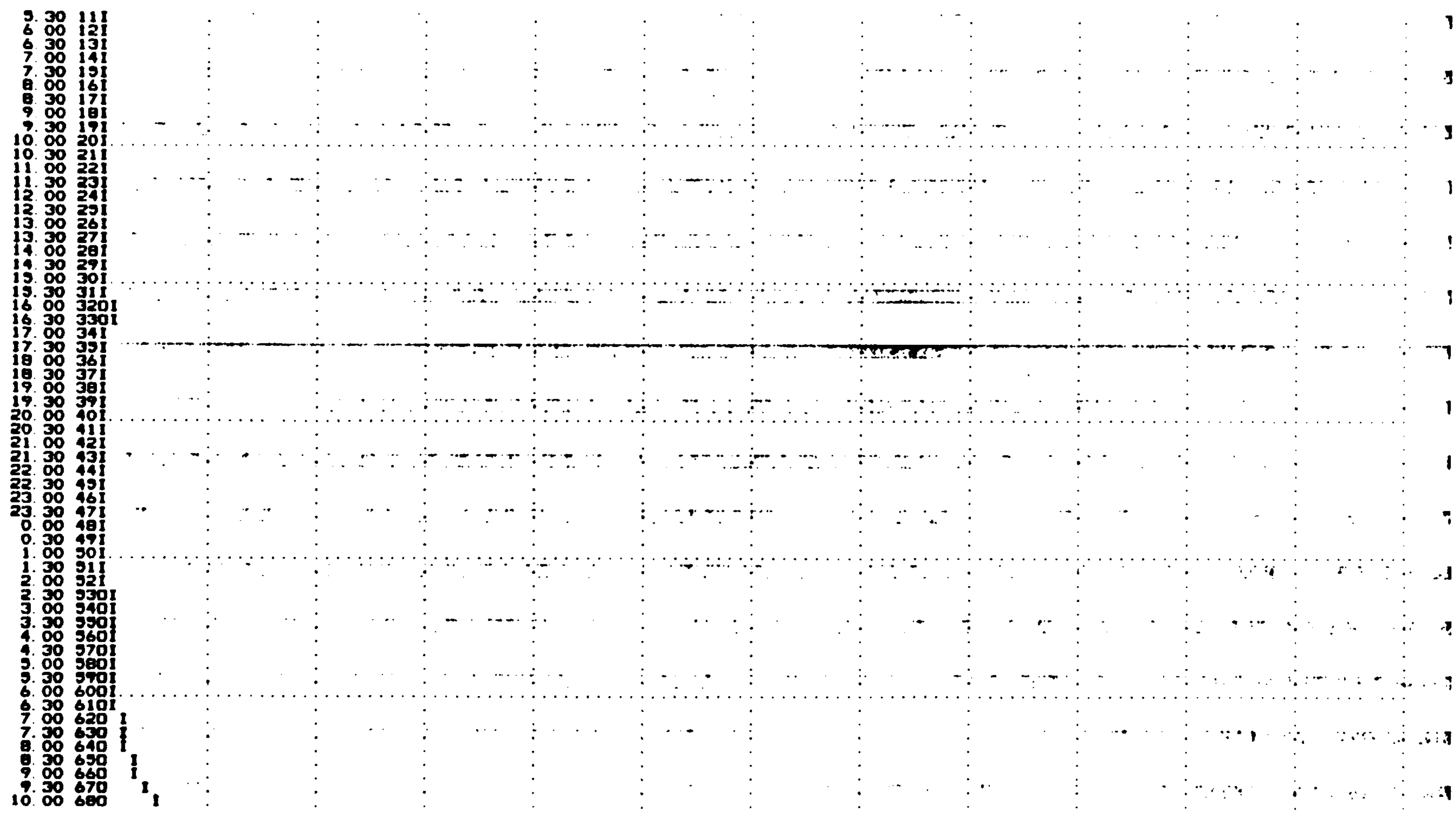
PEAK OUTFLOW IS 1311. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1311.	1293.	795.	319.	38289.
CMS	37.	37.	23.	9.	1084.
INCHES		0.15	0.36	0.36	0.36
MM		3.75	9.23	9.26	9.26
AC-FT		641.	1577.	1582.	1582.
THOUS CU M		791.	1945.	1952.	1952.

DVF

STATION 1

```
                         INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.     4000.    8000.    12000.   16000.   20000.   24000.   0.   0.   0.   0.   0.   0.
 0.30  11
 1.00  21
 1.30  31
 2.00  41
 2.30  51
 3.00  61
 3.30  71
 4.00  81
 4.30  91
 5.00 101
```


5.30 11I
6.00 12I
6.30 13I
7.00 14I
7.30 15I
8.00 16I
8.30 17I
9.00 18I
9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 320I
16.30 330I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
0.00 48I
0.30 49I
1.00 50I
1.30 51I
2.00 52I
2.30 530I
3.00 540I
3.30 550I
4.00 560I
4.30 570I
5.00 580I
5.30 590I
6.00 600I
6.30 610I
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680

```
10.30 690
11 00 700.
11 30 710
12 00 720
12.30 730
13 00 740
13.30 750
14 00 760
14.30 770
15.00 780
15.30 790
16.00 800.
16.30 810
17.00 820
17.30 83.0
18.00 84.0
18.30 85.0
19.00 86.0
19.30 87.0
20.00 88.0
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
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7.00110.
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11.30119.
12.00120.
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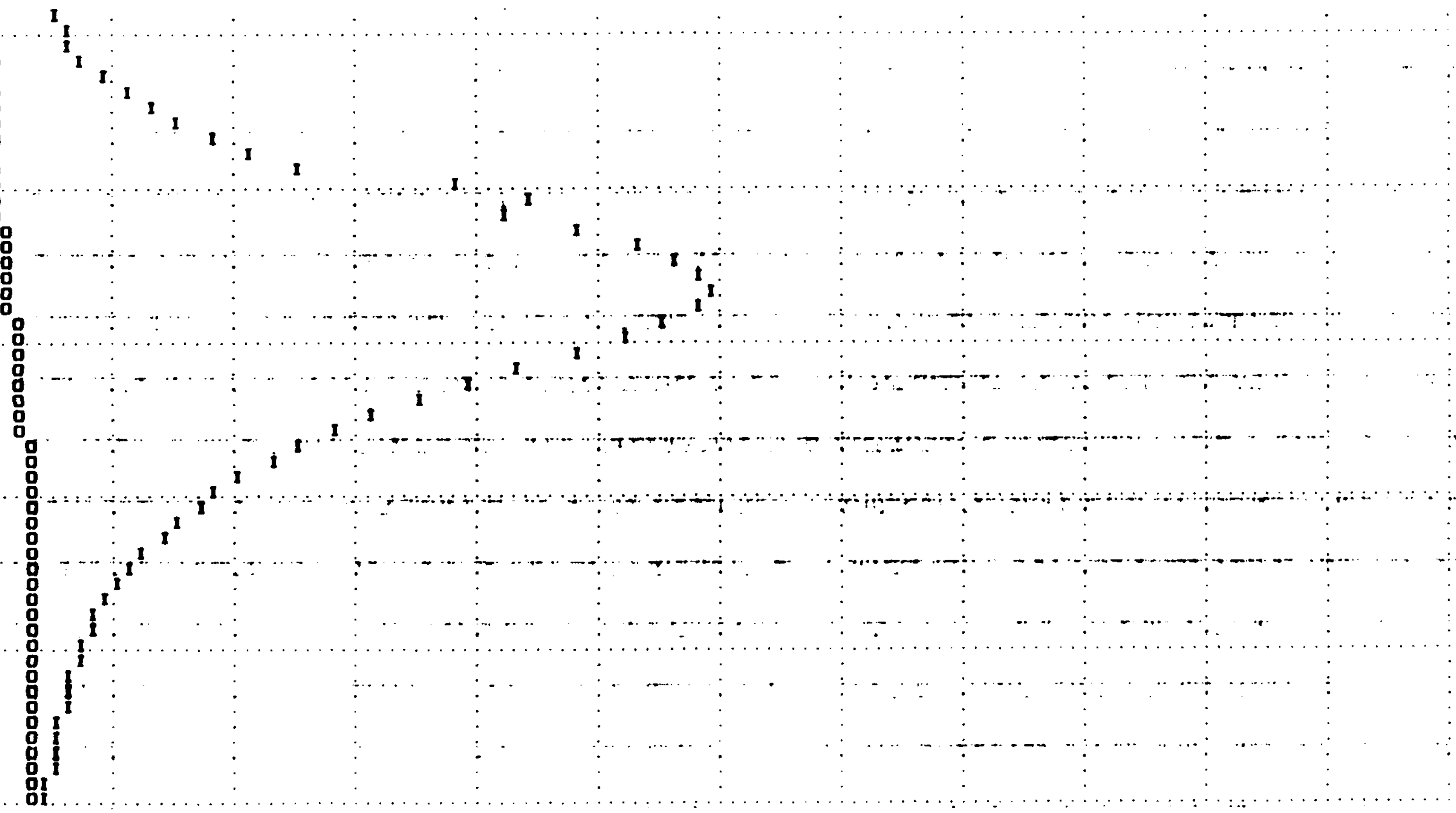


OVN

STATION 1, PLAN 1, RATIO 3

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0	0
0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	2.	2	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	3.	3	3.
3.	4.	4.	4.	5.	6.	6.	7.	8	9.
10.	12.	13.	15.	18.	20.	24.	37.	64.	100.
147.	195.	245.	301.	368.	437.	507.	586.	664.	705.
742.	806.	865.	926.	980.	1028.	1072.	1113.	1148	1180.
1207.	1232.	1253.	1271.	1288.	1302.	1314.	1325.	1334.	1343.
1350.	1357.	1362.	1367.	1372.	1375.	1378.	1380.	1382	1383.

STORAGE

20442.	20444.	20446.	20448.	20450.	20451.	20452.	20453.	20454.	20455.
20456.	20457.	20458.	20460.	20462.	20464.	20467.	20469.	20471	20473.
20474.	20475.	20476.	20477.	20479.	20484.	20488.	20493.	20498.	20505.
20512.	20524.	20540.	20550.	20557.	20562.	20566.	20569.	20571	20573
20575.	20577.	20579.	20580.	20581.	20582.	20583.	20584.	20587.	20592.
20598.	20606.	20613.	20622.	20631.	20642.	20653.	20666.	20680	20695.
20714.	20741.	20774.	20812.	20857.	20912.	20975.	21050.	21135.	21229.
21333.	21446.	21579.	21747.	21949.	22183.	22460.	22792.	23188	23729
24425.	25144.	25896.	26745.	27663.	28621.	29601.	30574	31514.	32400
33217.	33961.	34629.	35225.	35754.	36222.	36635.	37001.	37323.	37608.
37856.	38073.	38264.	38432.	38579.	38706.	38815.	38910.	38994.	39066.
39129.	39184.	39233.	39276.	39313.	39345.	39372.	39387.	39399.	39410.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	[illegible]
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190 0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190 1	1190 1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.3	1190.4	1190.5	1190.5	1190.6	1190.8
1190.9	1191.1	1191.3	1191.4	1191.7	1191.9	1192.1	1192.3	1192.5	1192.6
1192.8	1193.0	1193.1	1193.2	1193.4	1193.4	1193.5	1193.6	1193.7	1193.7
1193.8	1193.8	1193.9	1193.9	1193.9	1194.0	1194.0	1194.0	1194.0	1194.0
1194.1	1194.1	1194.1	1194.1	1194.1	1194.1	1194.1	1194.1	1194.1	1194.1

PEAK OUTFLOW IS 1383. AT TIME 60.00 HOURS

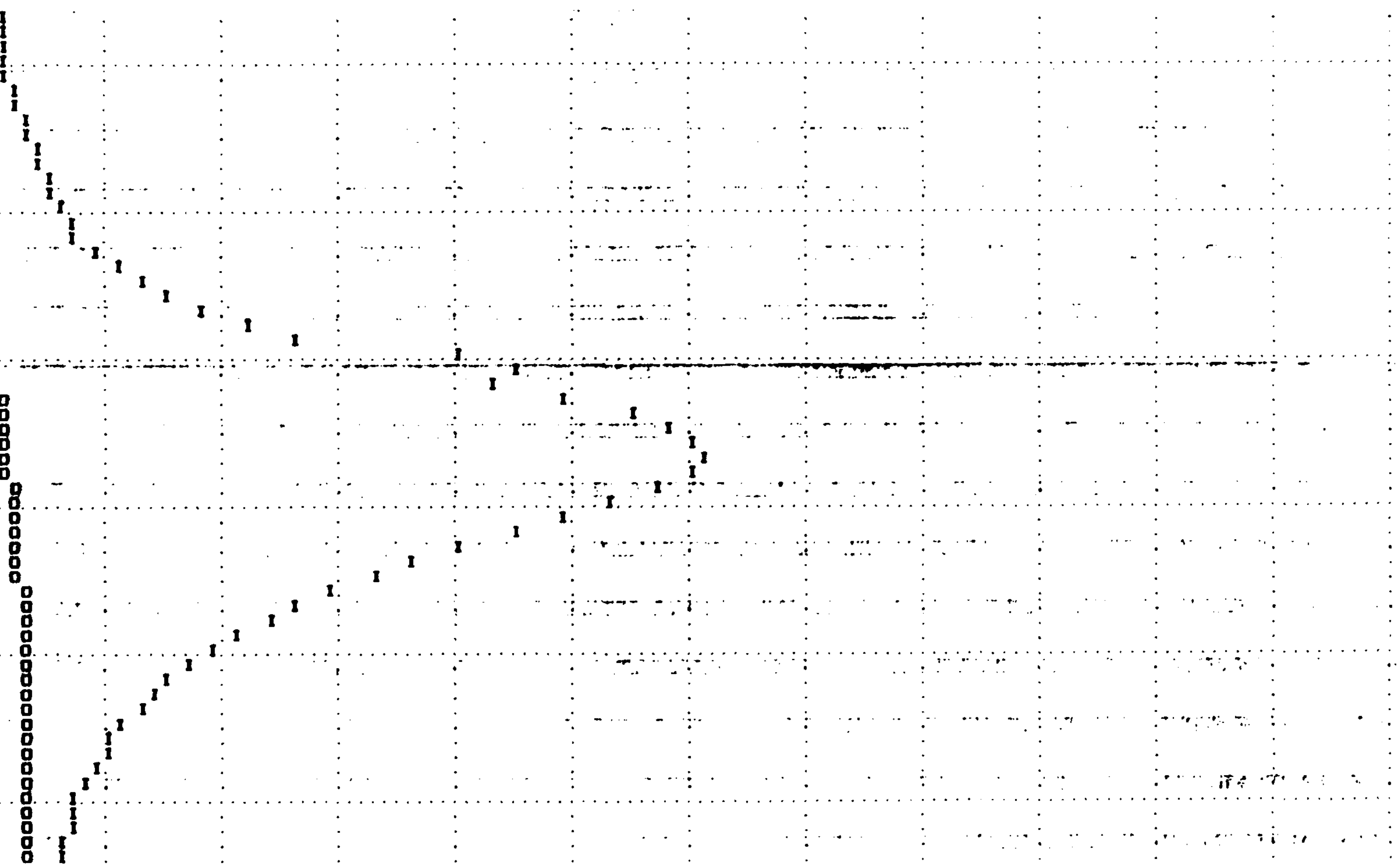
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1383.	1363.	837.	336.	40333.
CMS	39.	39.	24.	10.	1142.
INCHES		0.16	0.38	0.38	0.38
MM		3.96	9.73	9.76	9.76
AC-FT		676.	1661.	1667.	1667.
THOUS CU M		834.	2049.	2056.	2056.

OVF

STATION 1

```
                     INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.   4000.  8000.  12000.  16000.  20000.  24000.  28000.  0.  0.  0.  0.  0
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31I
16.00  320I
16.30  330I
17.00  34I
17.30  35I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
21.30  43I
22.00  44I
22.30  45I
23.00  46I
23.30  47I
 0.00  48I
 0.30  49I
 1.00  50I
 1.30  51I
 2.00  52I
 2.30  530I
 3.00  540I
 3.30  550I
 4.00  560I
```

4.30	570
5.00	580
5.30	590
6.00	600
6.30	610
7.00	620
7.30	630
8.00	640
8.30	650
9.00	660
9.30	670
10.00	680
10.30	690
11.00	700
11.30	710
12.00	720
12.30	730
13.00	740
13.30	750
14.00	760
14.30	770
15.00	780
15.30	790
16.00	800
16.30	810
17.00	820
17.30	83.
18.00	84.
18.30	85.
19.00	86.
19.30	87.
20.00	88.
20.30	89.
21.00	90.
21.30	91.
22.00	92.
22.30	93.
23.00	94.
23.30	95.
0.00	96.
0.30	97.
1.00	98.
1.30	99.
2.00	100.
2.30	101.
3.00	102.
3.30	103.
4.00	104.
4.30	105.
5.00	106.
5.30	107.
6.00	108.
6.30	109.
7.00	110.
7.30	111.
8.00	112.
8.30	113.
9.00	114.



```
 9.30115.  0  I
10.00116.  0 I
10.30117.  0 I
11.00118.  0 I
11.30119.  0 I
12.00120.  OI
```

OVN

STATION 1, PLAN 1, RATIO 4

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	3.	3.	3.	3.	3.
3.	4.	4.	5.	5.	6.	7.	7.	8.	10.
11.	12.	14.	16.	18.	21.	24.	43.	71.	108.
157.	206.	257.	315.	386.	457.	533.	615.	686.	720.
786.	845.	914.	977.	1033.	1085.	1132.	1174.	1211.	1243.
1272.	1297.	1318.	1338.	1356.	1371.	1384.	1395.	1405.	1414.
1421.	1428.	1438.	1447.	1455.	1461.	1467.	1471.	1475.	1478.

STORAGE

20442.	20444.	20446.	20448.	20451.	20452.	20453.	20454.	20455.	20456.
20457.	20458.	20459.	20461.	20463.	20465.	20468.	20470.	20472.	20474.
20476.	20478.	20479.	20480.	20482.	20487.	20492.	20497.	20504.	20510.
20518.	20530.	20547.	20559.	20565.	20571.	20575.	20578.	20580.	20582.
20584.	20587.	20589.	20591.	20592.	20593.	20594.	20595.	20597.	20603.
20610.	20617.	20626.	20634.	20644.	20656.	20668.	20682.	20697.	20712.
20731.	20757.	20793.	20832.	20879.	20934.	21000.	21076.	21163.	21261.
21368.	21484.	21622.	21797.	22007.	22249.	22534.	22878.	23286.	23846.
24564.	25308.	26085.	26762.	27911.	28901.	29911.	30917.	31888.	32804.
33649.	34417.	35108.	35723.	36267.	36751.	37178.	37555.	37887.	38179.
38435.	38659.	38856.	39028.	39178.	39309.	39422.	39519.	39604.	39678.
39742.	39799.	39848.	39891.	39929.	39960.	39987.	40009.	40027.	40041.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7	1190.8
1190.9	1191.1	1191.3	1191.5	1191.7	1191.9	1192.1	1192.3	1192.5	1192.7
1192.9	1193.1	1193.2	1193.3	1193.5	1193.6	1193.7	1193.7	1193.8	1193.9
1193.9	1194.0	1194.0	1194.0	1194.1	1194.1	1194.1	1194.1	1194.2	1194.2
1194.2	1194.2	1194.2	1194.2	1194.2	1194.3	1194.3	1194.3	1194.3	1194.3

PEAK OUTFLOW IS 1478. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1478.	1443.	883.	359.	42550.
CMS	42.	41.	25.	10	1205.
INCHES		0.16	0.40	0.41	0.41
MM		4.19	10.26	10.30	10.30
AC-FT		716.	1752.	1758.	1758.
THOUS CU M		883.	2162.	2169.	2169

OVF

STATION 1

```
                 INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
          0.   4000.   8000.  12000.  16000.  20000.  24000.  28000.     0.     0.     0.     0.     0.
 0.30  1I
 1.00  2I
 1.30  3I
 2.00  4I
 2.30  5I
 3.00  6I
 3.30  7I
 4.00  8I
 4.30  9I
 5.00 10I
 5.30 11I
 6.00 12I
 6.30 13I
 7.00 14I
 7.30 15I
 8.00 16I
 8.30 17I
 9.00 18I
 9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 31I
16.00 32OI
16.30 33OI
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
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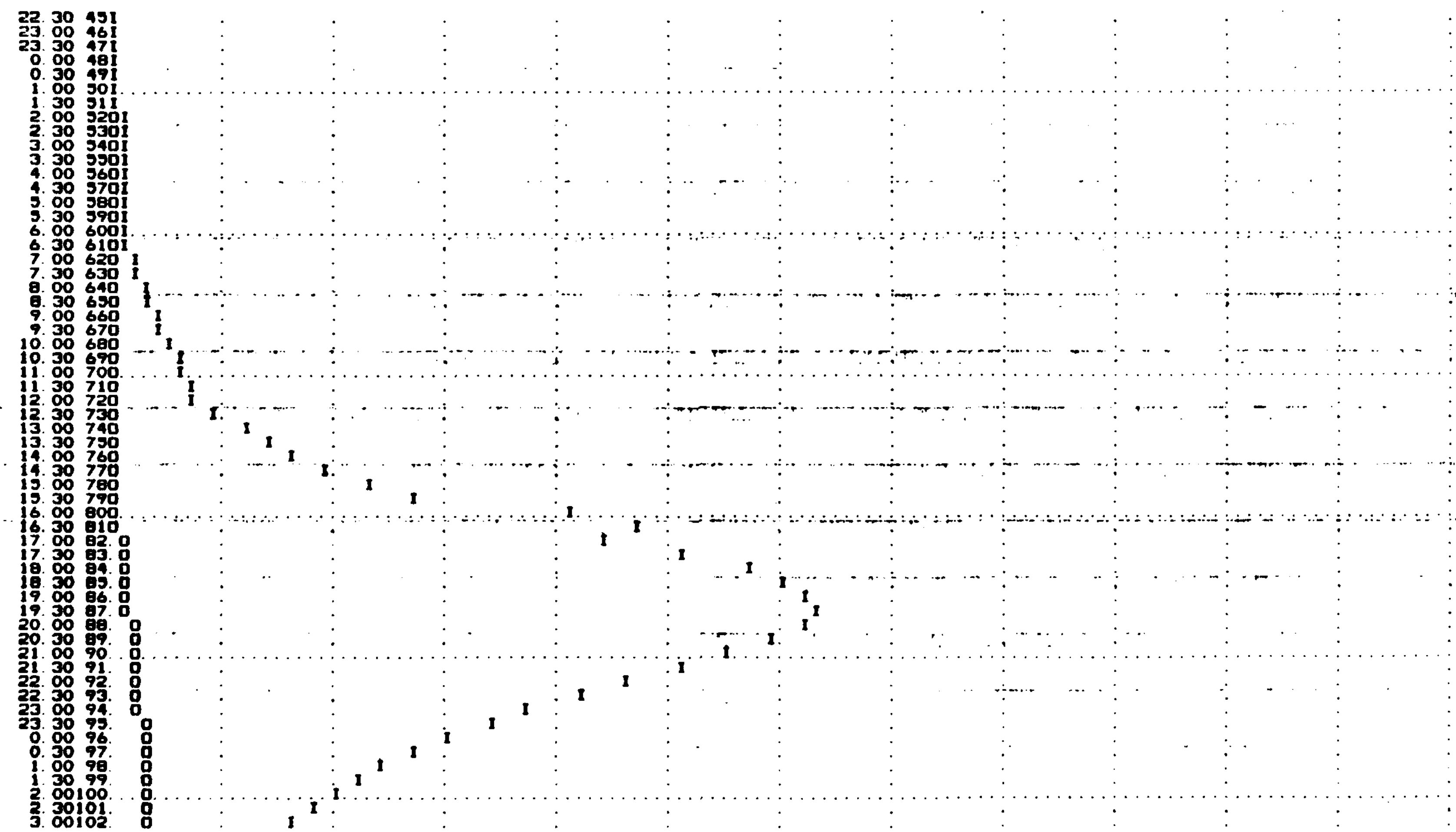

22.30 451
23.00 461
23.30 471
0.00 481
0.30 491
1.00 501
1.30 511
2.00 520
2.30 530
3.00 540
3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 810
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.

```
 3.30103.   O         .  I
 4.00104.   O           I
 4.30105.   O          I
 5.00106.   O         I
 5.30107.   O        I
 6.00108.   O       I
 6.30109.    O     I
 7.00110.    O.    I
 7.30111.    O    I
 8.00112.    O    I
 8.30113.    O   I
 9.00114.    O   I
 9.30115.    O   I
10.00116.    OI
10.30117.    OI
11.00118.    OI
11.30119.    OI
12.00120.    OI
```

OVN

STATION 1, PLAN 1, RATIO 5

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	3.	3.	3.	3.	3.
3.	4.	4.	5.	5.	6.	7.	8.	9.	10.
11.	13.	14.	16.	19.	22.	25.	48.	77.	116.
166.	216.	269.	332.	403.	476.	557.	642.	700.	741.
812.	889.	962.	1027.	1087.	1143.	1191.	1234.	1272.	1306.
1336.	1362.	1386.	1407.	1424.	1449.	1473.	1494.	1512.	1527.
1540.	1551.	1561.	1570.	1577.	1583.	1588.	1592.	1596.	1598.

STORAGE

20442.	20444.	20446.	20448.	20451.	20453.	20454.	20455.	20456.	20457.
20458.	20459.	20460.	20462.	20464.	20467.	20469.	20471.	20473.	20475.
20477.	20479.	20481.	20484.	20486.	20490.	20495.	20501.	20507.	20513.
20521.	20533.	20550.	20562.	20569.	20575.	20579.	20582.	20584.	20587.
20589.	20591.	20593.	20595.	20596.	20597.	20598.	20599.	20601.	20607.
20614.	20622.	20630.	20640.	20650.	20662.	20675.	20689.	20703.	20719.
20740.	20768.	20803.	20844.	20891.	20949.	21017.	21096.	21187.	21288.
21398.	21518.	21660.	21841.	22057.	22306.	22601.	22955.	23378.	23956.
24697.	25465.	26267.	27172.	28151.	29172.	30215.	31253.	32255.	33201.
34073.	34866.	35577.	36212.	36774.	37271.	37711.	38099.	38441.	38742.
39005.	39235.	39438.	39615.	39769.	39902.	40016.	40116.	40201.	40275.
40338.	40392.	40440.	40481.	40517.	40546.	40570.	40590.	40606.	40618.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7	1190.8
1191.0	1191.2	1191.3	1191.5	1191.8	1192.0	1192.2	1192.4	1192.6	1192.8
1193.0	1193.2	1193.3	1193.4	1193.6	1193.7	1193.8	1193.8	1193.9	1194.0
1194.0	1194.1	1194.1	1194.2	1194.2	1194.2	1194.3	1194.3	1194.3	1194.4
1194.4	1194.4	1194.4	1194.4	1194.5	1194.5	1194.5	1194.5	1194.5	1194.5

PEAK OUTFLOW IS 1598. AT TIME 60.00 HOURS

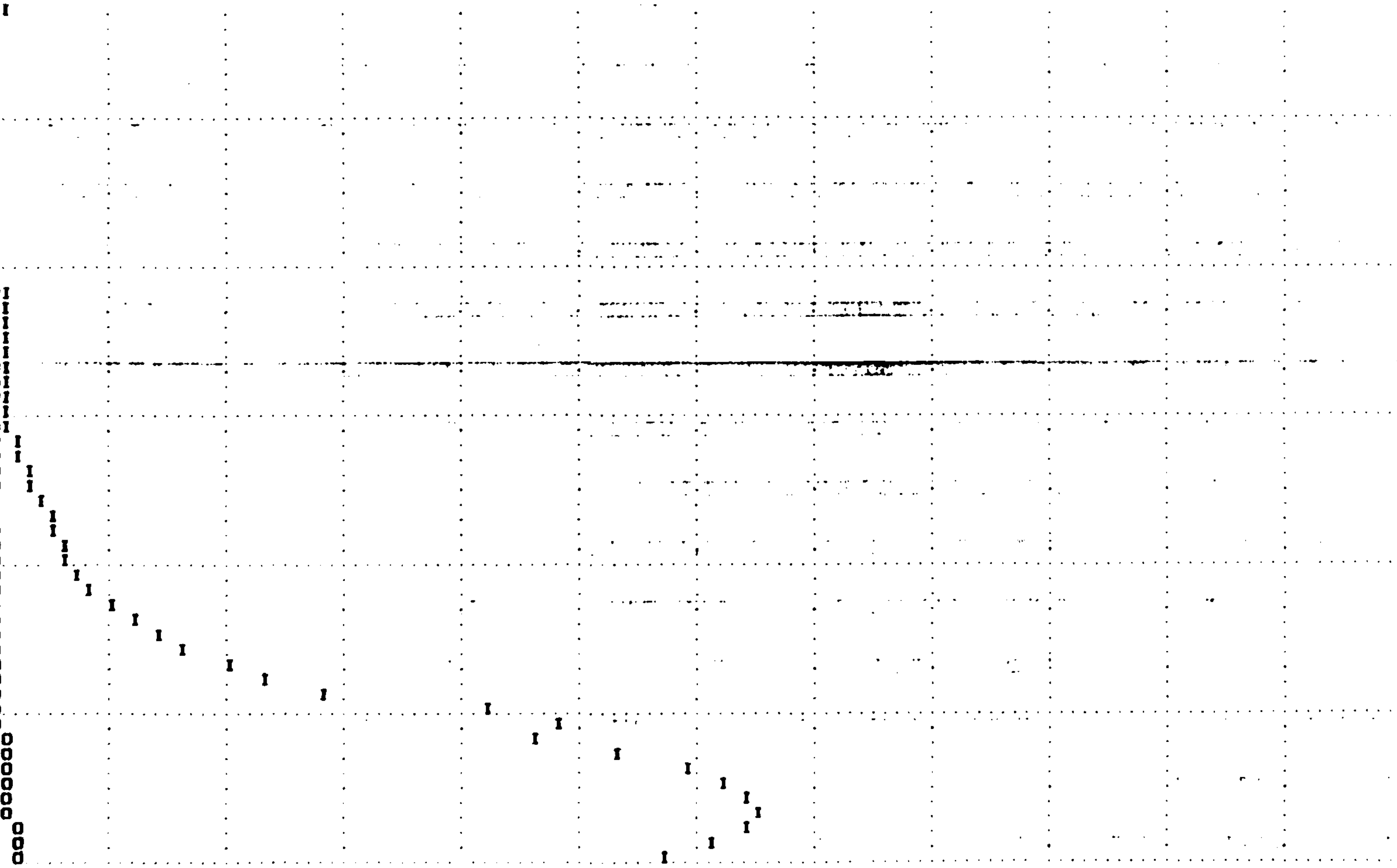
	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1598.	1562.	940.	377.	45245.
CMS	45.	44.	27.	11.	1281.
INCHES		0.18	0.43	0.43	0.43
MM		4.54	10.91	10.95	10.95
AC-FT		775.	1864.	1870.	1870.
THOUS CU M		955.	2299.	2306.	2306.

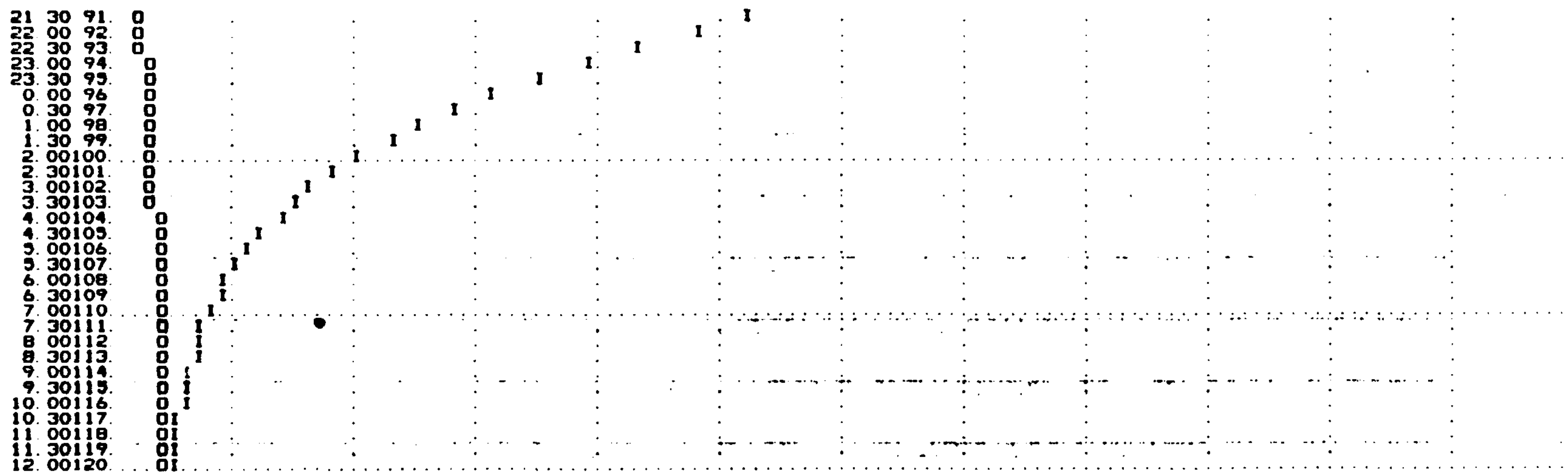
OVF

STATION 1

```
                    INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
            0.    4000.    8000.   12000.   16000.   20000.   24000.   28000.     0.     0.     0.     0.     0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  29I
15.00  30I
15.30  31OI
16.00  32OI
```

```
16.30 330I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
 0.00 48I
 0.30 49I
 1.00 50I
 1.30 51I
 2.00 520I
 2.30 530I
 3.00 540I
 3.30 550I
 4.00 560I
 4.30 570I
 5.00 580I
 5.30 590I
 6.00 600I
 6.30 610I
 7.00 620
 7.30 630
 8.00 640
 8.30 650
 9.00 660
 9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 810
17.00 82 0
17.30 83 0
18.00 84 0
18.30 85 0
19.00 86 0
19.30 87 0
20.00 88  0
20.30 89  0
21.00 90  0
```





O *I*

STATION 1, PLAN 1, RATIO 6

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	1.	1.	1.	1.	1.	1.	1.
1.	1.	1.	1.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	2.	2.	2.	2.	2.	2.
2.	2.	2.	2.	3.	3.	3.	3.	3.	3.
4.	4.	4.	5.	5.	6.	7.	8.	9.	10.
12.	13.	15.	17.	19.	22.	29.	53.	83.	123.
174.	226.	281.	348.	420.	496.	382.	670.	713.	783.
852.	935.	1010.	1079.	1143.	1200.	1250.	1294.	1334.	1370.
1401.	1429.	1472.	1510.	1542.	1570.	1594.	1615.	1633.	1648.
1661.	1673.	1682.	1690.	1697.	1703.	1708.	1711.	1714.	1716.

STORAGE

20442.	20444.	20446.	20448.	20451.	20453.	20455.	20456.	20457.	20458.
20459.	20460.	20461.	20463.	20465.	20468.	20470.	20472.	20474.	20476.
20478.	20480.	20482.	20485.	20487.	20491.	20496.	20502.	20508.	20515.
20523.	20536.	20554.	20565.	20572.	20578.	20582.	20586.	20588.	20590.

20592.	20594.	20596.	20598.	20600.	20601.	20603.	20604.	20606.	20611.
20618.	20626.	20634.	20644.	20655.	20666.	20679.	20693.	20708.	20724.
20745.	20775.	20811.	20853.	20903.	20963.	21033.	21114.	21208.	21312.
21427.	21550.	21696.	21882.	22104.	22361.	22666.	23030.	23466.	24062.
24825.	25617.	26444.	27378.	28387.	29441.	30517.	31587.	32621.	33595.
34494.	35310.	36043.	36696.	37275.	37787.	38240.	38639.	38991.	39299.
39569.	39806.	40014.	40194.	40350.	40484.	40599.	40699.	40785.	40857.
40919.	40973.	41020.	41059.	41092.	41120.	41142.	41159.	41172.	41182.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2	1190.2
1190.2	1190.3	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.7	1190.8
1191.0	1191.2	1191.4	1191.6	1191.8	1192.0	1192.3	1192.5	1192.7	1192.9
1193.1	1193.3	1193.4	1193.5	1193.7	1193.8	1193.9	1194.0	1194.0	1194.1
1194.2	1194.2	1194.3	1194.3	1194.4	1194.4	1194.5	1194.5	1194.5	1194.6
1194.6	1194.6	1194.6	1194.6	1194.7	1194.7	1194.7	1194.7	1194.7	1194.7

PEAK OUTFLOW IS 1716. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1716.	1682.	1001.	402.	48193.
CMS	49.	48.	28.	11.	1365.
INCHES		0.19	0.46	0.46	0.46
MM		4.88	11.62	11.66	11.66
AC-FT		834.	1985.	1991.	1991.
THOUS CU M		1029.	2449.	2456.	2456.

OVF

STATION 1

```
                          INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
        0.     4000.     8000.    12000.    16000.    20000.    24000.    28000.        0.        0.        0.        0.        0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I.......................................................................................................................
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I.......................................................................................................................
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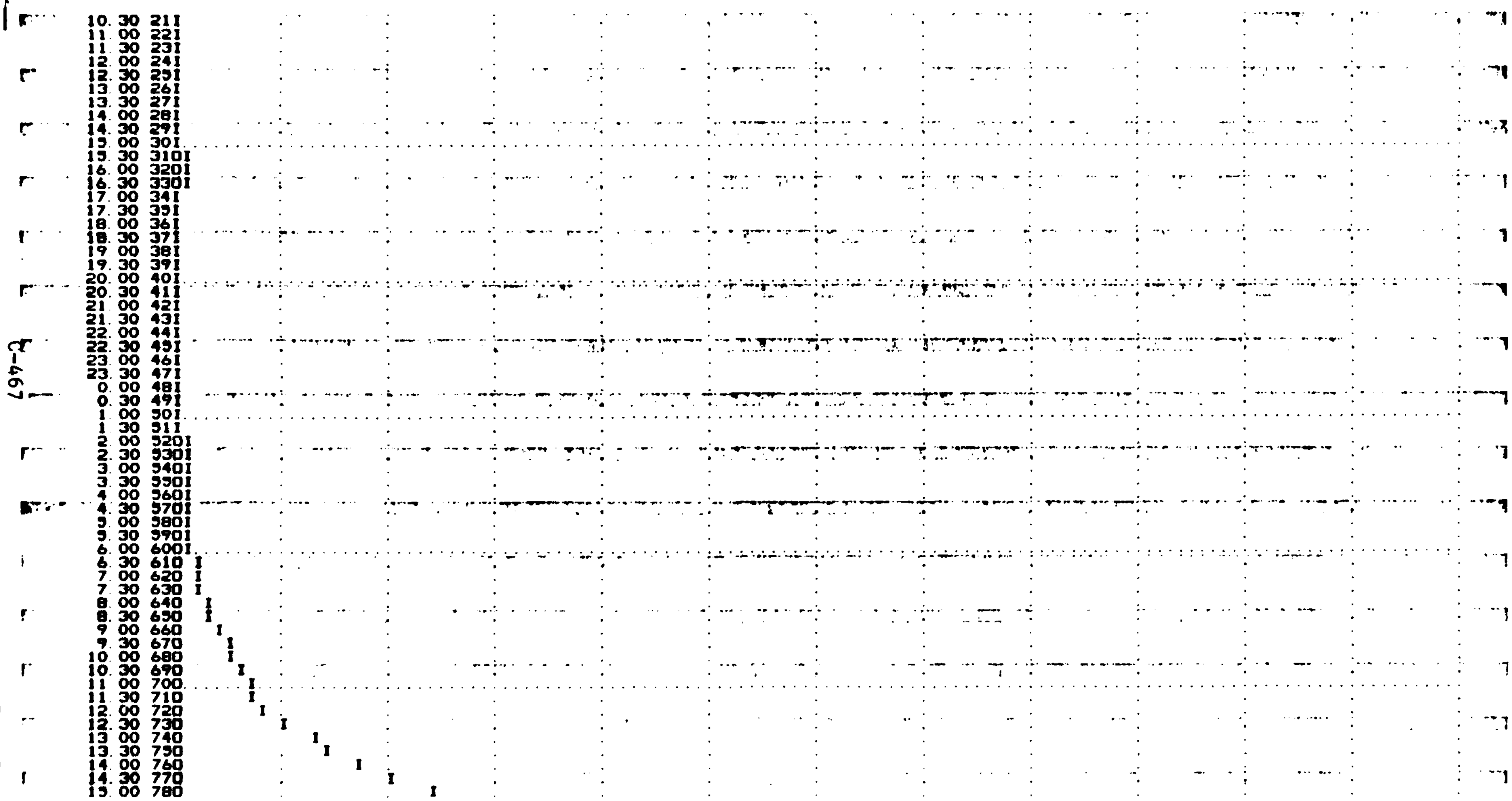
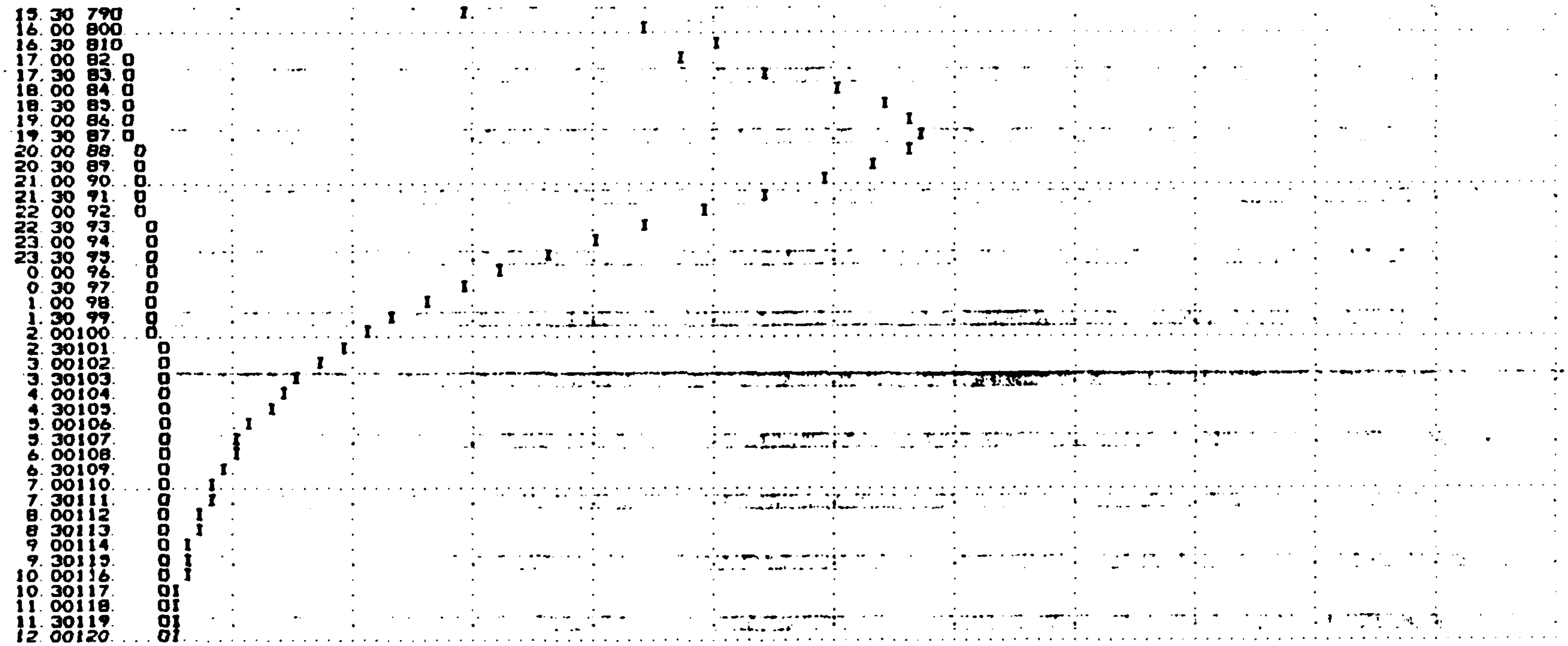

10.30 21
11.00 22
11.30 23
12.00 24
12.30 25
13.00 26
13.30 27
14.00 28
14.30 29
15.00 30
15.30 310
16.00 320
16.30 330
17.00 34
17.30 35
18.00 36
18.30 37
19.00 38
19.30 39
20.00 40
20.30 41
21.00 42
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 520
2.30 530
3.00 540
3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780



DVN

STATION 1, PLAN 1, RATIO 7

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

4.	4.	5.	5.	6.	6.	7.	8.	9.	11.
12.	13.	15.	17.	20.	23.	34.	59.	89.	130.
183.	237.	293.	363.	437.	518.	607.	688.	727.	808.
895.	981.	1059.	1133.	1200.	1258.	1310.	1357.	1399.	1442.
1499.	1550.	1594.	1632.	1665.	1693.	1717.	1738.	1756.	1771.
1784.	1795.	1804.	1812.	1818.	1824.	1828.	1831.	1833.	1835.

STORAGE

20442.	20444.	20446.	20448.	20451.	20453.	20455.	20457.	20458.	20459.
20460.	20461.	20462.	20464.	20467.	20469.	20471.	20473.	20475.	20477.
20479.	20481.	20484.	20486.	20488.	20492.	20497.	20504.	20510.	20518.
20526.	20540.	20558.	20571.	20578.	20584.	20590.	20593.	20595.	20597.
20599.	20601.	20604.	20606.	20608.	20609.	20610.	20611.	20613.	20618.
20626.	20634.	20643.	20652.	20663.	20676.	20690.	20704.	20720.	20737.
20759.	20789.	20827.	20870.	20921.	20983.	21055.	21139.	21234.	21342.
21460.	21587.	21738.	21930.	22160.	22425.	22738.	23113.	23562.	24174.
24961.	25776.	26628.	27590.	28631.	29716.	30824.	31927.	32992.	33996.
34922.	35762.	36517.	37188.	37785.	38311.	38777.	39188.	39549.	39866.
40143.	40385.	40595.	40778.	40937.	41072.	41187.	41287.	41372.	41444.
41505.	41557.	41602.	41640.	41671.	41697.	41717.	41732.	41743.	41751.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.2	1190.2	1190.2
1190.2	1190.3	1190.3	1190.3	1190.4	1190.5	1190.5	1190.6	1190.7	1190.9
1191.0	1191.2	1191.4	1191.6	1191.9	1192.1	1192.3	1192.5	1192.8	1193.0
1193.2	1193.4	1193.5	1193.7	1193.8	1193.9	1194.0	1194.1	1194.1	1194.2
1194.3	1194.4	1194.5	1194.5	1194.6	1194.6	1194.7	1194.7	1194.8	1194.8
1194.8	1194.8	1194.8	1194.9	1194.9	1194.9	1194.9	1194.9	1194.9	1194.9

PEAK OUTFLOW IS 1835. AT TIME 60.00 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	1835.	1804.	1066.	428.	51306.
CMS	52.	51.	30.	12.	1453.
INCHES		0.21	0.47	0.47	0.47
MM		5.24	12.38	12.41	12.41
AC-FT		894.	2114.	2120.	2120.
THOUS CU M		1103.	2607.	2615.	2615.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
          0     4000.     8000.    12000.    16000.    20000.    24000.    28000.        0.        0.        0.        0.        0.
0.30    11I
1.00    21I
1.30    31I
2.00    41I
2.30    51I
3.00    61I
3.30    71I
4.00    81I
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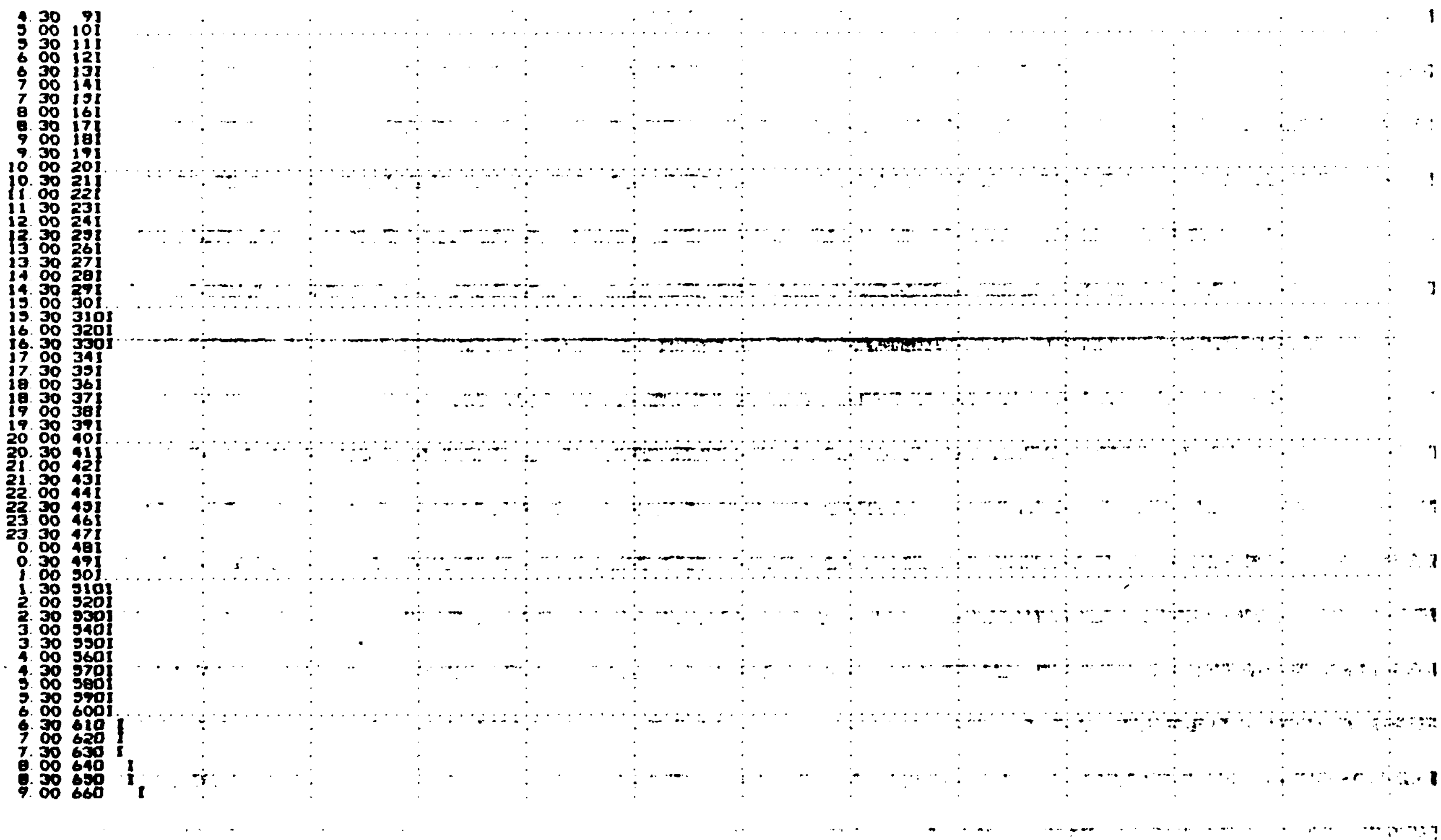
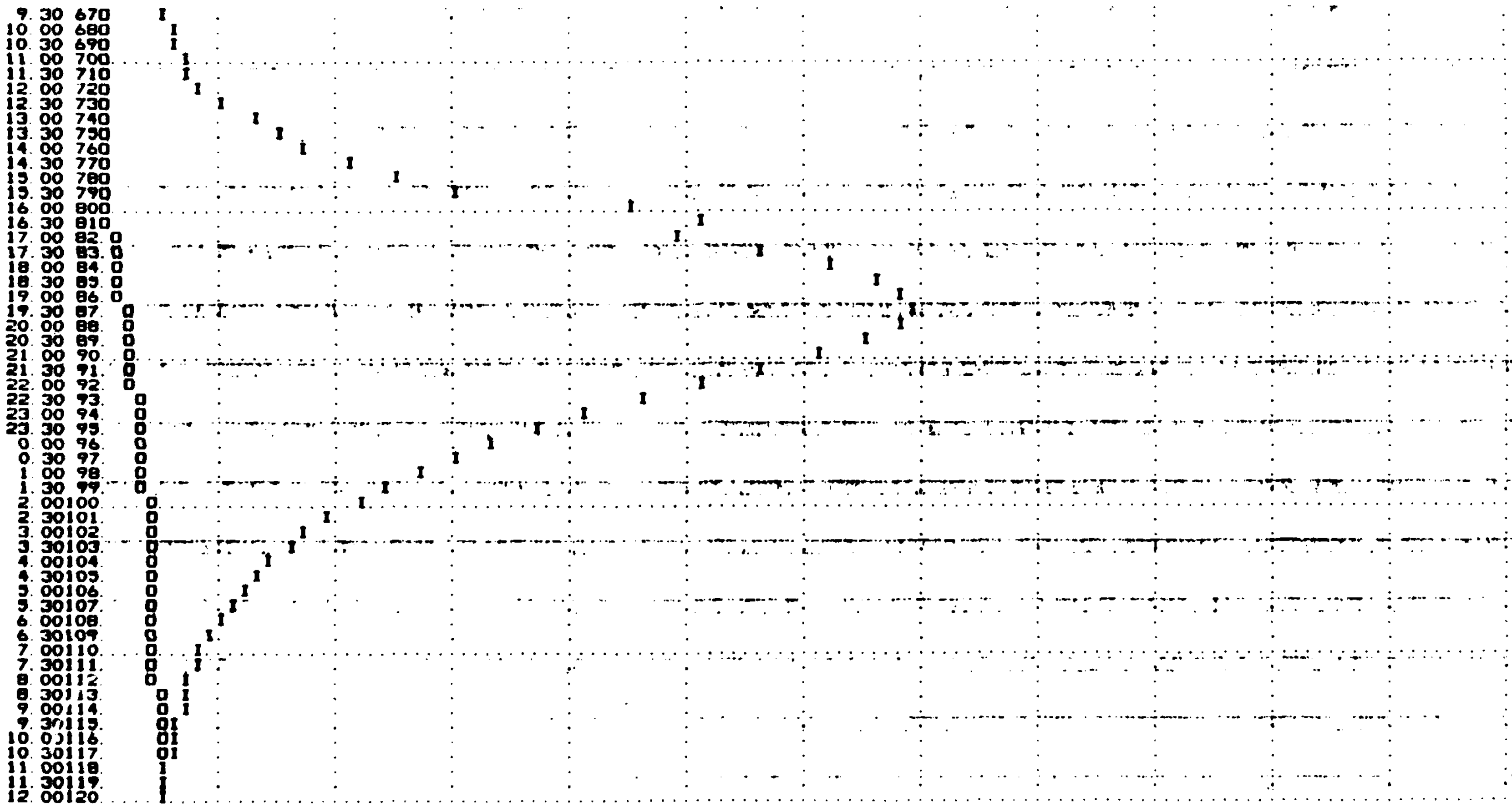

4.30 9I
5.00 10I
5.30 11I
6.00 12I
6.30 13I
7.00 14I
7.30 15I
8.00 16I
8.30 17I
9.00 18I
9.30 19I
10.00 20I
10.30 21I
11.00 22I
11.30 23I
12.00 24I
12.30 25I
13.00 26I
13.30 27I
14.00 28I
14.30 29I
15.00 30I
15.30 310I
16.00 320I
16.30 330I
17.00 34I
17.30 35I
18.00 36I
18.30 37I
19.00 38I
19.30 39I
20.00 40I
20.30 41I
21.00 42I
21.30 43I
22.00 44I
22.30 45I
23.00 46I
23.30 47I
0.00 48I
0.30 49I
1.00 50I
1.30 510I
2.00 520I
2.30 530I
3.00 540I
3.30 550I
4.00 560I
4.30 570I
5.00 580I
5.30 590I
6.00 600I
6.30 610 I
7.00 620 I
7.30 630 I
8.00 640 I
8.30 650 I
9.00 660 I


9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 810
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00100.
2.30101.
3.00102.
3.30103.
4.00104.
4.30105.
5.00106.
5.30107.
6.00108.
6.30109.
7.00110.
7.30111.
8.00112.
8.30113.
9.00114.
9.30115.
10.00116.
10.30117.
11.00118.
11.30119.
12.00120.

OVN

STATION 1, PLAN 1, RATIO 8

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
0.	0.	0.	0.	0.	1.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	2.	2.	2.	2.	3.	3.	3.	3.	3.
3.	3.	3.	3.	3.	3.	3.	3.	3.	3.
3.	3.	4.	4.	4.	4.	4.	5.	5.	5.
6.	6.	7.	8.	8.	9.	11.	12.	14.	16.
18.	20.	22.	27.	50.	76.	107.	144.	188.	248.
325.	413.	504.	617.	708.	812.	975.	1147.	1321.	1540.
1821.	2121.	2407.	2660.	2882.	3075.	3244.	3390.	3516.	3625.
3717.	3795.	3861.	3916.	3962.	3998.	4027.	4050.	4067.	4079.
4086.	4091.	4092.	4092.	4088.	4083.	4075.	4066.	4055.	4043.

STORAGE

20443.	20446.	20450.	20453.	20456.	20459.	20462.	20464.	20467.	20469.
20471.	20473.	20475.	20478.	20481.	20485.	20488.	20491.	20494.	20497.
20501.	20504.	20507.	20510.	20514.	20521.	20529.	20538.	20547.	20558.
20570.	20590.	20616.	20634.	20645.	20655.	20662.	20666.	20670.	20674.
20677.	20680.	20683.	20686.	20690.	20692.	20694.	20698.	20700.	20709.
20720.	20733.	20747.	20762.	20779.	20797.	20817.	20839.	20863.	20888.
20920.	20965.	21020.	21084.	21159.	21249.	21356.	21480.	21621.	21779.
21952.	22140.	22362.	22645.	22982.	23370.	23830.	24380.	25037.	25936.
27093.	28290.	29540.	30951.	32479.	34072.	35699.	37315.	38874.	40339.
41683.	42895.	43973.	44924.	45757.	46484.	47116.	47664.	48137.	48543.
48888.	49181.	49427.	49634.	49804.	49941.	50049.	50133.	50196.	50241.
50270.	50287.	50293.	50290.	50277.	50256.	50228.	50193.	50153.	50108.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.2	1190.2	1190.2	1190.2	1190.3	1190.3
1190.3	1190.4	1190.4	1190.5	1190.6	1190.7	1190.8	1190.9	1191.1	1191.3
1191.5	1191.8	1192.0	1192.3	1192.7	1193.0	1193.3	1193.7	1194.0	1194.4
1194.9	1195.3	1195.7	1196.0	1196.3	1196.6	1196.8	1197.0	1197.1	1197.3
1197.4	1197.5	1197.6	1197.7	1197.7	1197.8	1197.8	1197.9	1197.9	1197.9
1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.9	1197.8

PEAK OUTFLOW IS 4092. AT TIME 56.50 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	4092.	4077.	2421.	970.	116430.
CMS	116.	115.	69.	27.	3297.
INCHES		0.47	1.11	1.11	1.11
MM		11.84	28.11	28.17	28.17
AC-FT		2021.	4801.	4811.	4811.
THOUS CU M		2493.	5923.	5934.	5934.

OVF

```
                                          STATION    1

                        INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
               0.   5000.   10000.   15000.   20000.   25000.   30000.   35000.   40000.   45000.   0.   0.   0.
  0.30   1I
  1.00   2I
  1.30   3I
  2.00   4I
  2.30   5I
  3.00   6I
  3.30   7I
  4.00   8I
  4.30   9I
  5.00  10I
  5.30  11I
  6.00  12I
  6.30  13I
  7.00  14I
  7.30  15I
  8.00  16I
  8.30  17I
  9.00  18I
  9.30  19I
 10.00  20I
 10.30  21I
 11.00  22I
 11.30  23I
 12.00  24I
 12.30  25I
 13.00  26I
 13.30  27I
 14.00  28I
 14.30  29OI
 15.00  30OI
 15.30  31OI
 16.00  32OI
 16.30  33OI
 17.00  34OI
 17.30  35OI
 18.00  36I
 18.30  37I
 19.00  38I
 19.30  39I
 20.00  40I
 20.30  41I
 21.00  42I
 21.30  43I
 22.00  44I
 22.30  45I
 23.00  46I
 23.30  47I
  0.00  48I
  0.30  49I
  1.00  50OI
  1.30  51OI
  2.00  52OI
  2.30  53OI
  3.00  54OI
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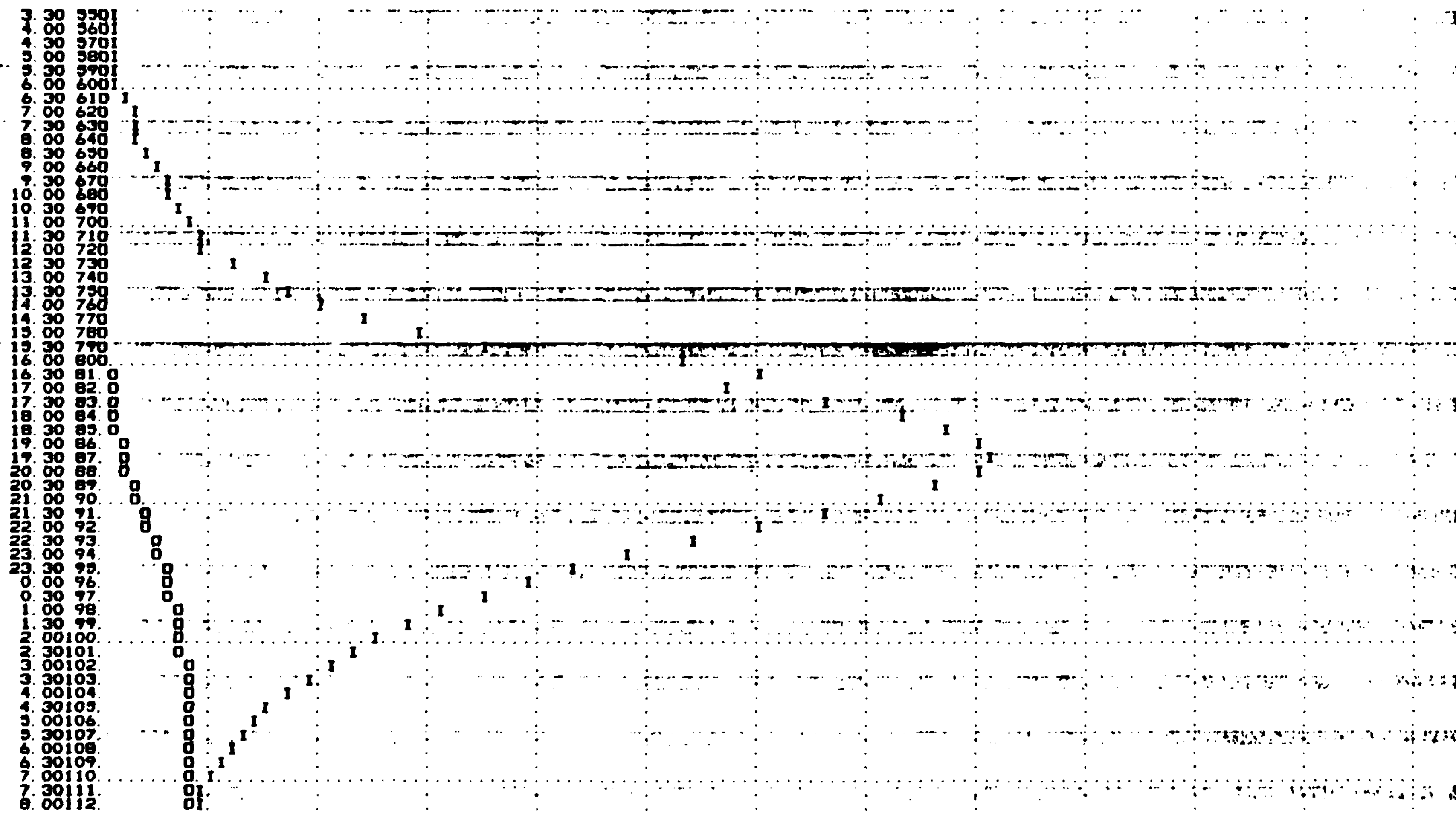
3.30 550
4.00 560
4.30 570
5.00 580
5.30 590
6.00 600
6.30 610
7.00 620
7.30 630
8.00 640
8.30 650
9.00 660
9.30 670
10.00 680
10.30 690
11.00 700
11.30 710
12.00 720
12.30 730
13.00 740
13.30 750
14.00 760
14.30 770
15.00 780
15.30 790
16.00 800
16.30 81.
17.00 82.
17.30 83.
18.00 84.
18.30 85.
19.00 86.
19.30 87.
20.00 88.
20.30 89.
21.00 90.
21.30 91.
22.00 92.
22.30 93.
23.00 94.
23.30 95.
0.00 96.
0.30 97.
1.00 98.
1.30 99.
2.00 100.
2.30 101.
3.00 102.
3.30 103.
4.00 104.
4.30 105.
5.00 106.
5.30 107.
6.00 108.
6.30 109.
7.00 110.
7.30 111.
8.00 112.

8.30113.	1
9.00114.	1
9.30115.	10
10.00116.	10
10.30117.	10
11.00118.	1 0
11.30119.	1 0
12.00120.	1. 0

DVN

STATION 1, PLAN 1, RATIO 9

END-OF-PERIOD HYDROGRAPH ORDINATES

OUTFLOW

0.	0.	0.	0.	0.	0.	1.	1.	1.	1.
1.	1.	1.	1.	1.	1.	1.	1.	1.	1.
2.	2.	2.	2.	2.	2.	2.	2.	3.	3.
3.	4.	4.	5.	5.	5.	5.	5.	6.	6.
6.	6.	6.	6.	6.	6.	6.	6.	6.	7.
7.	7.	7.	8.	8.	9.	9.	10.	10.	11.
12.	13.	14.	15.	17.	19.	22.	25.	40.	61.
85.	110.	140.	177.	221.	272.	336.	415.	511.	657.
791.	1018.	1291.	1765.	2531.	3364.	4212.	5051.	5917.	6934.
7857.	8680.	9403.	10030.	10570.	11030.	11421.	11749.	12021.	12244.
12423.	12562.	12669.	12746.	12797.	12824.	12831.	12820.	12796.	12759.
12711.	12655.	12592.	12523.	12448.	12369.	12285.	12197.	12106.	12013.

STORAGE

20446.	20453.	20459.	20465.	20472.	20478.	20485.	20490.	20495.	20501.
20506.	20511.	20516.	20523.	20530.	20538.	20544.	20550.	20557.	20563.
20570.	20576.	20582.	20589.	20597.	20611.	20628.	20646.	20666.	20689.
20713.	20733.	20807.	20845.	20866.	20885.	20900.	20909.	20918.	20925.
20933.	20940.	20947.	20953.	20959.	20965.	20970.	20975.	20984.	21002.
21025.	21051.	21078.	21108.	21142.	21179.	21220.	21264.	21312.	21363.
21427.	21517.	21628.	21757.	21909.	22089.	22303.	22551.	22835.	23151.
23497.	23870.	24311.	24871.	25539.	26312.	27227.	28322.	29632.	31426.
33733.	36120.	38611.	41417.	44438.	47567.	50739.	53869.	56863.	59645.
62167.	64412.	66384.	68093.	69562.	70816.	71878.	72770.	73511.	74117.
74601.	74980.	75270.	75480.	75618.	75691.	75709.	75682.	75615.	75514.
75383.	75231.	75060.	74873.	74671.	74454.	74226.	73987.	73740.	73487.

STAGE

1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0
1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.0	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1	1190.1
1190.1	1190.1	1190.1	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2	1190.2
1190.2	1190.2	1190.3	1190.3	1190.3	1190.4	1190.4	1190.5	1190.6	1190.6
1190.7	1190.8	1190.9	1191.0	1191.2	1191.3	1191.6	1191.8	1192.1	1192.4
1192.9	1193.4	1194.0	1194.8	1195.8	1196.9	1198.1	1199.2	1200.2	1201.2
1202.1	1202.9	1203.6	1204.2	1204.7	1205.2	1205.5	1205.8	1206.1	1206.3
1206.5	1206.6	1206.7	1206.8	1206.9	1206.9	1206.9	1206.9	1206.9	1206.8
1206.8	1206.7	1206.7	1206.6	1206.5	1206.4	1206.4	1206.3	1206.2	1206.1

PEAK OUTFLOW IS 12831. AT TIME 53.50 HOURS

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	12831.	12728.	8037.	3220.	386387.
CMS	363.	360.	228.	91.	10941.
INCHES		1.45	3.67	3.68	3.68
MM		36.96	93.34	93.49	93.49
AC-FT		6312.	15941.	15966.	15966.
THOUS CU M		7785.	19663.	19694.	19694.

OVF

STATION 1

```
                  INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)
           0.   10000.   20000.   30000.   40000.   50000.   60000.   70000.   80000.   0000.   0.   0.   0.
 0.30   1I
 1.00   2I
 1.30   3I
 2.00   4I
 2.30   5I
 3.00   6I
 3.30   7I
 4.00   8I
 4.30   9I
 5.00  10I
 5.30  11I
 6.00  12I
 6.30  13I
 7.00  14I
 7.30  15I
 8.00  16I
 8.30  17I
 9.00  18I
 9.30  19I
10.00  20I
10.30  21I
11.00  22I
11.30  23I
12.00  24I
12.30  25I
13.00  26I
13.30  27I
14.00  28I
14.30  290I
15.00  300I
15.30  310I
16.00  320I
16.30  330I
17.00  340I
17.30  350I
18.00  36I
18.30  37I
19.00  38I
19.30  39I
20.00  40I
20.30  41I
21.00  42I
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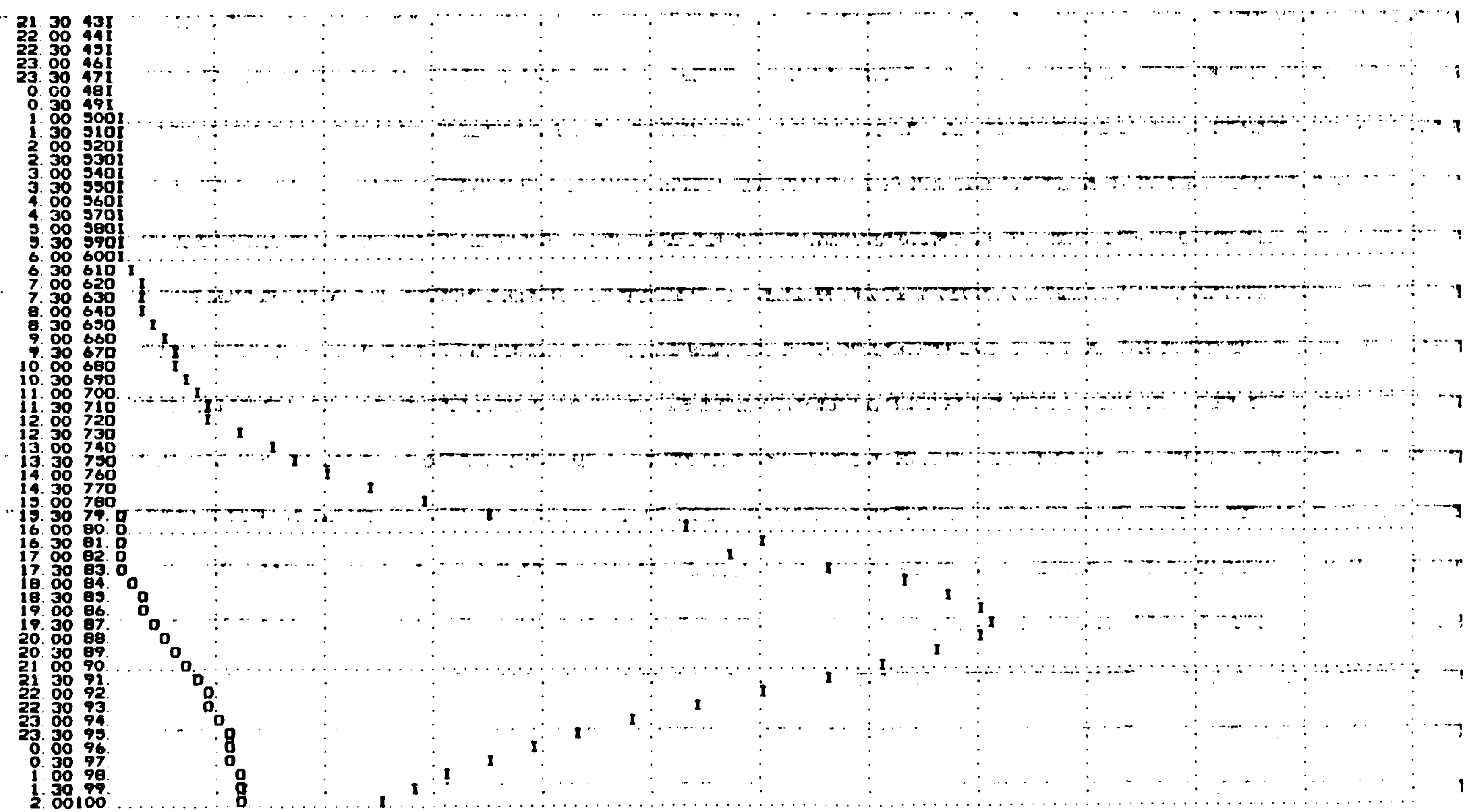
21.30 43
22.00 44
22.30 45
23.00 46
23.30 47
0.00 48
0.30 49
1.00 50
1.30 51
2.00 52
2.30 53
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22.00 92
22.30 93
23.00 94
23.30 95
0.00 96
0.30 97
1.00 98
1.30 99
2.00 100

```
 2 30101.        . O       . I
 3 00102.        .  O      I
 3 30103.        .  O    I.
 4 00104.        .  O  I   .
 4 30105.        .  O I    .
 5 00106.        .  OI     .
 5 30107.        .  I      .
 6 00108.        . IO      .
 6 30109.        .I O      .
 7 00110. . . . I. O . . . . . . . . . . . . . . . .
 7 30111.       I.  O      .
 8 00112.       I.  O      .
 8 30113.      I .  O      .
 9 0011'       I .  O      .
 9 301'       I  . O       .
10 00) ,'.    I  . O       .
10 30117.     I  . O       .
11 00118.    I   . O       .
11 30119.    I   . O       .
12 00120. . .I. . .O. . . . . . . . . . . . . . . .
```

OVN

********** ********** ********** ********** **********

PEAK FLOW AND STORAGE (END OF PERIOD) SUMMARY FOR MULTIPLE PLAN-RATIO ECONOMIC COMPUTATIONS
FLOWS IN CUBIC FEET PER SECOND (CUBIC METERS PER SECOND)
AREA IN SQUARE MILES (SQUARE KILOMETERS)

OPERATION	STATION	AREA	PLAN	RATIO 1 0.20	RATIO 2 0.29	RATIO 3 0.30	RATIO 4 0.31	RATIO 5 0.32	RATIO 6 0.33	RATIO 7 0.34	RATIO 8 0.50	RATIO 9 1.00
				RATIOS APPLIED TO FLOWS								
HYDROGRAPH AT	1	23.84	1	5064.	7343.	7596.	7849.	8103.	8356.	8609.	12660.	25320.
	(	61.74)	(	143.40)(	207.93)(	215.10)(	222.27)(	229.44)(	236.61)(	243.78)(	358.50)(	716.99)
HYDROGRAPH AT	1	13.03	1	3007.	4360.	4510.	4661.	4811.	4961.	5112.	7517.	15034.
	(	33.75)	(	85.15)(	123.46)(	127.72)(	131.98)(	136.23)(	140.49)(	144.75)(	212.86)(	425.73)
2 COMBINED	1	36.87	1	7994.	11591.	11991.	12390.	12790.	13190.	13589.	19984.	39969.
	(	95.49)	(	226.36)(	328.22)(	339.54)(	350.85)(	362.17)(	373.49)(	384.81)(	565.89)(	1131.79)
HYDROGRAPH AT	1	17.47	1	3105.	4503.	4658.	4813.	4968.	5124.	5279.	7763.	15526.
	(	45.25)	(	87.93)(	127.50)(	131.89)(	136.29)(	140.69)(	145.08)(	149.48)(	219.82)(	439.65)
2 COMBINED	1	54.34	1	10959.	15890.	16438.	16986.	17534.	18082.	18630.	27396.	54793.
	(	140.74)	(	310.31)(	449.95)(	465.47)(	480.98)(	496.50)(	512.02)(	527.53)(	775.78)(	1551.56)
HYDROGRAPH AT	1	4.77	1	1088.	1577.	1631.	1686.	1740.	1795.	1849.	2719.	5438.
	(	12.35)	(	30.80)(	44.66)(	46.20)(	47.74)(	49.28)(	50.82)(	52.36)(	77.00)(	153.99)

2 COMBINED	1	59.11 (153.09)	1	12017. (340.28)	17429. (493.41)	18025. (510.42)	18626. (527.44)	19227. (544.45)	19828. (561.47)	20429. (578.48)	30042. (850.70)	60085. (1701.41)
HYDROGRAPH AT	1	5.56 (14.40)	1	1475. (41.76)	2138. (60.55)	2212. (62.64)	2286. (64.72)	2359. (66.81)	2433. (68.90)	2507. (70.99)	3687. (104.39)	7373. (208.78)
2 COMBINED	1	64.67 (167.49)	1	13265. (375.64)	19235. (544.67)	19898. (563.45)	20561. (582.23)	21225. (601.02)	21888. (619.80)	22551. (638.58)	33164. (939.09)	66327. (1878.18)
HYDROGRAPH AT	1	10.33 (26.75)	1	2777. (78.63)	4026. (114.01)	4165. (117.94)	4304. (121.87)	4443. (125.80)	4582. (129.73)	4720. (133.67)	6942. (196.57)	13883. (393.14)
2 COMBINED	1	75.00 (194.25)	1	15832. (448.31)	22956. (650.05)	23748. (672.46)	24539. (694.88)	25331. (717.29)	26123. (739.71)	26914. (762.12)	39580. (1120.77)	79159. (2241.53)
HYDROGRAPH AT	1	6.38 (16.52)	1	4153. (117.60)	6022. (170.51)	6229. (176.39)	6437. (182.27)	6645. (188.15)	6852. (194.03)	7060. (199.91)	10382. (293.99)	20764. (587.98)
2 COMBINED	1	81.38 (210.77)	1	16223. (459.38)	23523. (666.09)	24334. (689.06)	25145. (712.03)	25956. (735.00)	26767. (757.97)	27579. (780.94)	40557. (1148.44)	81113. (2296.87)
ROUTED TO	1	81.38 (210.77)	1	747. (21.15)	1311. (37.14)	1383. (39.16)	1478. (41.86)	1598. (45.26)	1716. (48.59)	1835. (51.96)	4092. (115.89)	12831. (363.32)

SUMMARY OF DAM SAFETY ANALYSIS

PLAN 1

	INITIAL VALUE	SPILLWAY CREST	TOP OF DAM
ELEVATION	1190.00	1190.00	1194.20
STORAGE	20440.	20440.	39800.
OUTFLOW	0.	0.	1428.

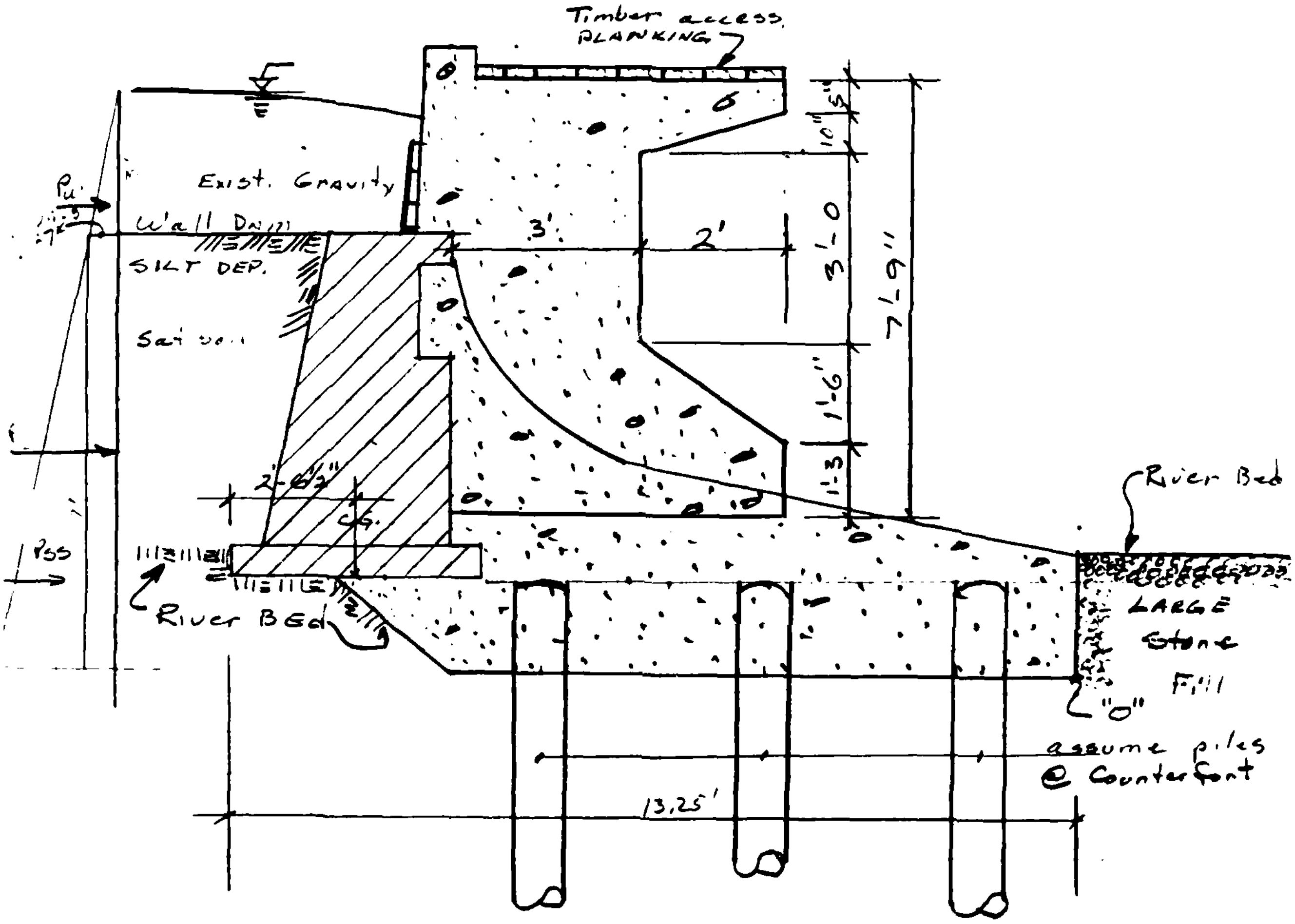
RATIO OF PMF	MAXIMUM RESERVOIR W.S. ELEV	MAXIMUM DEPTH OVER DAM	MAXIMUM STORAGE AC-FT	MAXIMUM OUTFLOW CFS	DURATION OVER TOP HOURS	TIME OF MAX OUTFLOW HOURS	TIME OF FAILURE HOURS
0.20	1192.83	0.00	33261.	747.	0.00	60.00	0.00
0.29	1193.99	0.00	38794.	1311.	0.00	60.00	0.00
0.30	1194.12	0.00	39410.	1383.	0.00	60.00	0.00
0.31	1194.29	0.09	40041.	1478.	4.00	60.00	0.00
0.32	1194.49	0.29	40618.	1598.	7.50	60.00	0.00
0.33	1194.69	0.49	41182.	1716.	9.50	60.00	0.00
0.34	1194.89	0.69	41751.	1835.	10.50	60.00	0.00
0.50	1197.91	3.71	50293.	4092.	15.50	56.50	0.00
1.00	1206.89	12.69	75709.	12831.	18.50	53.50	0.00

****
FLOOD HYDROGRAPH PACKAGE (HEC-1)
DAM SAFETY VERSION JULY 1978
LAST MODIFICATION 26 FEB 79
****

APPENDIX D

STRUCTURAL STABILITY ANALYSIS

PROJECT Otsego Lake Dam Inv. No. 351	**FLAHERTY-GIAVARA ASSOCIATES** ENVIRONMENTAL DESIGN CONSULTANTS ONE COLUMBUS PLAZA, NEW HAVEN, CONN 06510/203/789-1260
SHEET NO. 1 OF 4	BY R.W. DATE 7/29/81
CHK'D. BY	DATE



$P_W = \frac{7^2}{2} \times .0624 = 0.28^K/Ft$ $\qquad P_2 = .187^{K/SF} \times 7' = 1.31^K/Ft$

$P_{SS} = .056 \times \frac{7^2}{2} = 1.35^K/FT.$ $\qquad \Sigma F_H \cong 3^K/Ft.$

$M_{OT.} = .28 \times 8' + 1.31 \times 3.5' + 1.35 \times 2.33' \cong 10^{'K}/Ft.$

Analyze "Typical Composite Section" one Counterfort + old wall (9' Section) + 9' Section of Spillway on piles.

Section	(wt.)	(dist. from "O") arm	Mom. about "O"
(.5×4.5+2×5+.5×1.5×5) 16	×.15 = 2.4	10.71'	25.7'K
Counterfort .83 (7½×3+2×1.25+1.5+½×2+4/12)	24 SF ×.15 = 3.6/9 = .4	9.21'	3.7'K
Pile Cap 2×10 + Radius Portion	20×.15 = 3.0	5.0'	15.0
(½×1.5×7+1.5×3+9(1-π/4)) = 11.67	×.15 = 1.75	6.67'	11.67
			56.01K

PROJECT Otsego Lake Dam - Inv. No. 361

FLAHERTY-GIAVARA ASSOCIATES
ENVIRONMENTAL DESIGN CONSULTANTS
ONE COLUMBUS PLAZA, NEW HAVEN, CONN 06510/203/789-1260

SHEET NO. 2 OF 4
BY RW DATE 7/29/81
CHK'D. BY ____ DATE ____

$M_R = 56.^{'K}$ $F_{H.R.} = \frac{\overset{F_V}{7.55} \times .6}{} = 4.53$ ← coef. friction

$\Sigma F_V = 7.55^K$

$F.S._{SL.} = \frac{4.53 + .72}{3} = 1.75$ Low but ok

$P_{ass.} = .5 \times 2^2 \times 3 \times .12 = .72^{K}/Ft$ $\frac{6.09}{10} = .61b$ ok

$F.S._{O.T.} = \frac{56}{10} = 5.6$ ok

Uplift $= 2/3\ .0624 \times 10 = .416^{K}/Ft$

Press on Piles : 9' Area

$R = \frac{56 \times 9 - 10 \times 9}{7.55 \times 9} = 6.09'$ $e = \frac{13.25}{2} - 6.09 = .54'$

$S.P. = \frac{7.55 \times 9}{9(10)} \left(1 \pm \frac{6 \times .54}{10}\right) = \begin{matrix} 1.32 \\ .68 \end{matrix} = \begin{matrix} 1.0 \\ .24 \end{matrix}) \times 9$

Ld / Pile $\frac{11.16}{2} \times \frac{10}{3} = 18.6^{K}/Pile$ ≈ say 10 T / Pile

Mom. @ base of Counterfort :

$P_W = .187^{K}/SF \times \frac{3}{2} = .28^{K}/Ft \times 9' = 2.52^K \times 5' = 12.5^{'K}$

$P_2 = .187 \times 4 = .748 \times 9 \times 2 = 13.46^{'K}$

$P_3 = .5 \times 4^2 \times .055 = .44 \times 9 \times 1.33' = 5.27^{'K}$

$\Sigma M_{OT} = 31.23^{'K}$

$d = 36 - 3 - 5/16 = 32.68 > 5$

$A_s = \frac{31.23}{1.44 \times 32.68} = .67''^2/Ft.$

2 - #5 / Counterfort ok

Uplift : $2/3 \times 10' \times .0624 = .42^{K}/SF$ ↑

vs $.24^{K}/SF$ ↓ resultant tension in conc. neg.

Normal Cond. + Ice loading:

5^k @ 10' above toe of Section

$F_H = 5^k/Ft$ $\qquad M_{oT} = 50'^k$

$FS_{SL} = \frac{5.25}{8} = 0.65$ $\qquad$ * Neg Loc.

$FS_{O.T.} = \frac{56}{60} = .93$

High Water Analysis $\quad$ 4.2' above level of old sect.

$P_1 = \frac{4.2^2}{2} \times .0624 = .55^k \rightarrow$

Loc. of Res.

$\frac{56 - 14.2}{7.55} = \frac{5.54}{10} = 0.55$ b ok

$P_2 = (4.2 \times .0624) \times 7 = 1.83^k \rightarrow$

$P_3 = 1.35^k/FT \rightarrow$ $\qquad \Sigma F_H = 3.73^k \rightarrow$

$M_{oT} = .55 \times 8.4 + 1.83 \times 3.5 + 1.35 \times 2.33 = 14.2'^k$

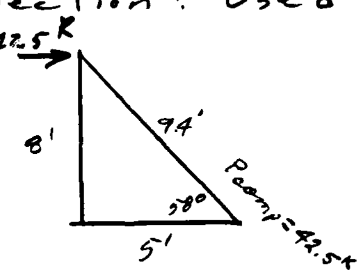
$F.S._{SL.} = \frac{5.25^k/Ft}{3.73^k/Ft} = 1.4$ Low

$F.S._{O.T.} = \frac{56.0}{14.2} = 3.94$ ok

Uplift & Conc. Stresses will not be meaningfully changed by add'l ht. of water.

Check Steel Section: Used as Col.

Ice Ld on Flash bd. Post
$.5 \times \frac{9}{2} = 22.5^k$



$\frac{L}{r_{min}} = \frac{9.4}{.41} = 22.9$

$F_a = 20.41$

$\frac{42.5}{20.41} = 2.08\,in^2$ min.

C 3 x 5 $\quad A = 1.47$ $\qquad$ max allow Ld. = $30^k << 42.5$

small channel is ineffective as support for flash bd. supports
recommend in-plane "K" Bracing.

.5 PMF w/ flashboards:

Ht. of water 8.9' above Spillway crest

$P_W = 8.9 \times .0624 = 0.56^{K}/Ft.$
$P_1 = .56 \times \frac{8.9}{2} = 2.24^{K}/Ft$
$P_2 = .56 \times 7 = 3.92^{K}/Ft$
$P_3 = 1.35^{K}/Ft$

$\Sigma M_{O.T.} = 2.24 \times (7 + \overset{7.67}{\frac{8.9}{3}}) = 21.65^{'K} + 3.92 \times 3.5' + 1.35 \times 2.33' = 36^{'K}$
$\Sigma P_H = 7.51^{K}$

$F.S._{SL} = \frac{5.25}{7.51} = 0.70$ Unstable

$F.S._{O.T.} = \frac{56.0}{36} = 1.56 < 2$ Undesirable
Loc. of Res. $\frac{56-36}{7.51} = 2.65 \div 10 = .27b$

.5 PMF w/o flashboards:

Ht. of water 7.9' above Spillway Crest

$P_W = 7.9' \times .0624 = 0.49^{K}/Ft^2$

$P_1 = .49 \times \frac{7.9'}{2} = 1.95^{K}/Ft.$

$P_2 = .49 \times 7' = 3.43^{K}/Ft.$

$P_3 = 1.35^{K}/Ft$

$P_H = 1.95 + 3.43 + 1.35 = 6.28^{K}/Ft.$

$M_{O.T.} = 1.95 \times (7 + \frac{7.9}{3}) + 3.43 \times 3.5 + 1.35 \times 2.33 = 33.9^{'K}$

$F.S._{SL.} = \frac{5.25}{6.28} = 0.84$ Unstable

$F.S._{O.T.} = \frac{56}{34} = 1.65 < 2$ Undesirable

Loc. of Res. $\frac{56-34}{7.55} = 2.91$ .29b

APPENDIX E

PREVIOUS INSPECTION REPORTS/AVAILABLE DOCUMENTS

PREVIOUS REPORTS

Form IW51 6-16-18 2000 (16-15288)

(NOTICE: After filling out one of these forms as completely as possible for each dam in your district, return it at once to the Conservation Commission, Albany.)

STATE OF NEW YORK

CONSERVATION COMMISSION

ALBANY

DAM REPORT

Cooperstown, Mch. 17th, 1918
(Date)

CONSERVATION COMMISSION,

DIVISION OF INLAND WATERS.

GENTLEMEN:

I have the honor to make the following report in relation to the structure known as the Pumping Station Dam.

This dam is situated upon the Susquehanna river (Give name of stream) in the Town of Otsego & Middlefield, Otsego County, about 1/4 mile (State distance) from the Village or City of Cooperstown, N.Y.

The distance up (Up or down) stream from the dam, to the bridge (Give name of nearest important stream or of a bridge), is about 40 feet (State distance).

The dam is now owned by Cooperstown Aqueduct Assn + Andrews Co (Give name in full) and was built in or about the year — beyond memory of living man, and was extensively repaired or reconstructed during the year 1910.

As it now stands, the spillway portion of this dam is built of piles + concrete (State whether of masonry, concrete or timber) and the other portions are built of same (State whether of masonry, concrete, earth or timber with or without rock fill).

As nearly as I can learn, the character of the foundation bed under the spillway portion of the dam is clay and under the remaining portions such foundation bed is clay.

OK

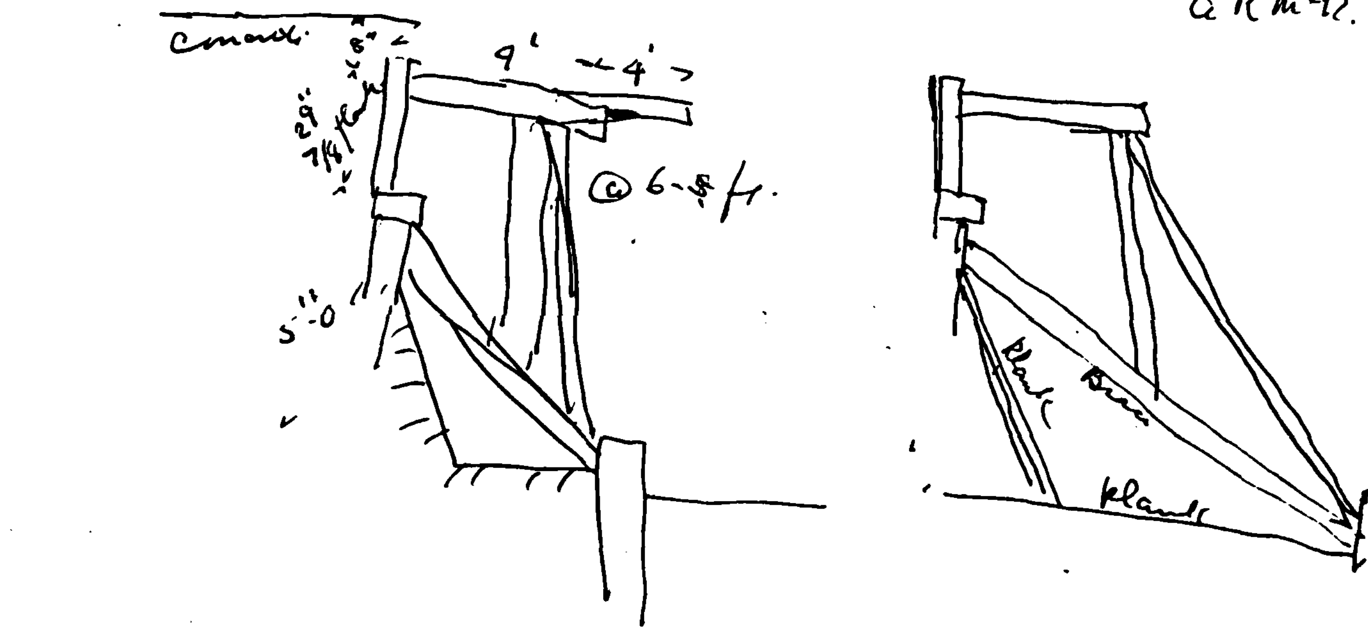
The total length of this dam is 75 feet. The spillway or waste-weir portion, is about same feet long, and the crest of the spillway is about 1 1/2 — feet below the top of the dam.

The number, size and location of discharge pipes, waste pipes or gates which may be used for drawing off the water from behind the dam, are as follows: one, which is conducted by canal to Pumping Station.

State briefly, in the space below, whether, in your judgment, this dam is in good condition, or bad condition, describing particularly any leaks or cracks which you may have observed.)

This dam was repaired in 1910, and should say was in good condition.

30 May 15
ARM-R.



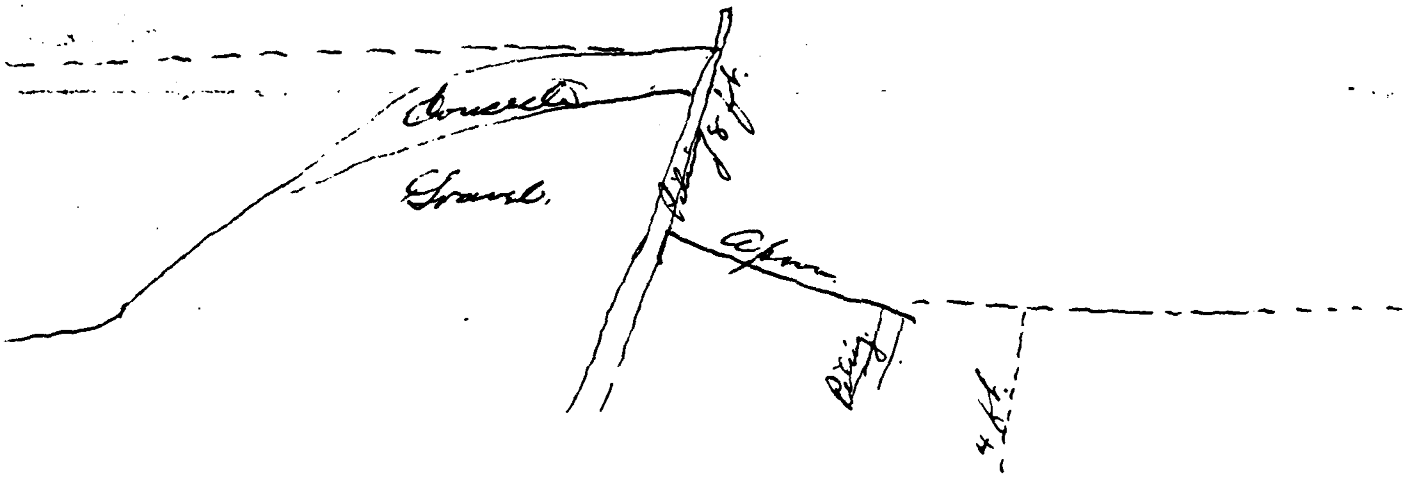
Reported by W. J. Newell.
(Signature)

(Address—Street and number, P. O. Box or R. F. D. route)

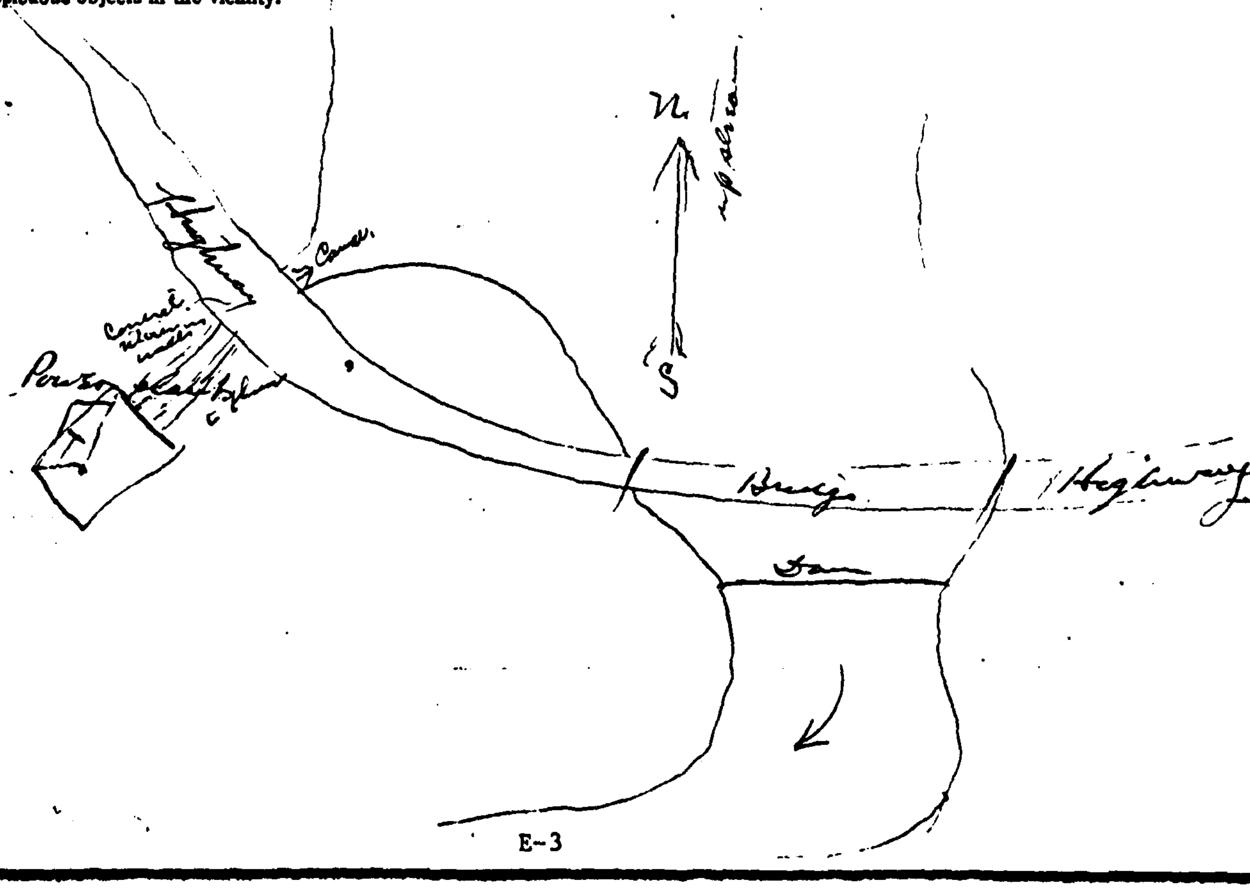
Mount Vernon N.Y.
(Name of place)

(SEE OTHER SIDE)

(In the space below, make one sketch showing the form and dimensions of a cross section through the spillway or waste-weir of this dam, and a second sketch showing the same information for a cross section through the other portion of the dam. Show particularly the greatest height of the dam above the stream bed, its thickness at the top, and thickness at the bottom, as nearly as you can learn.)



(In the space below, make a third sketch showing the general plan of the dam, and its approximate position in relation to buildings or other conspicuous objects in the vicinity.



Form IW81 6-18-12 2000 (16-16288)

(NOTICE: After filling out one of these forms as completely as possible for each dam in your district, return it at once to the Conservation Commission, Albany.)

STATE OF NEW YORK
CONSERVATION COMMISSION
ALBANY

DAM REPORT

June 6 (Date), 1917

CONSERVATION COMMISSION,

DIVISION OF INLAND WATERS.

GENTLEMEN:

I have the honor to make the following report in relation to the structure known as the Map 144 ~~[illegible]~~ 918 Ins Dam.

This dam is situated upon the Susquehanna River (Give name of stream)

in the Town of Cooperstown, Otsego County,

about 1/2 mile (State distance) from the Village or City of Cooperstown.

The distance down (Up or down) stream from the dam, to the Otsego Lake (Give name of nearest important stream or of a bridge), is about one mile (State distance).

The dam is now owned by Mrs J. A. M. Johnson, Cooperstown, N.Y. (Give name in full)

and was built in or about the year ——, and was extensively repaired or reconstructed during the year ——.

As it now stands, the spillway portion of this dam is built of timber (State whether of masonry, concrete or timber)

and the other portions are built of concrete, timber with rock fill (State whether of masonry, concrete, earth or timber with or without rock fill)

As nearly as I can learn, the character of the foundation bed under the spillway portion of the dam is rock with earth fill and under the remaining portions such foundation bed is earth & small stones

The total length of this dam is 60 feet. The spillway or waste-weir portion, is about 80 feet long, and the crest of the spillway is about 1.2 feet below the top of the dam.

The number, size and location of discharge pipes, waste pipes or gates which may be used for drawing off the water from behind the dam, are as follows: There are no gates. The dam is merely used to collect water for milling

State briefly, in the space below, whether, in your judgment, this dam is in good condition, or bad condition, describing particularly any leaks or cracks which you may have observed.)

This dam is in good condition. The parts subject to wear are built of concrete and the concrete is as yet still in good condition.

Reported by Willard L Botsford
(Signature)

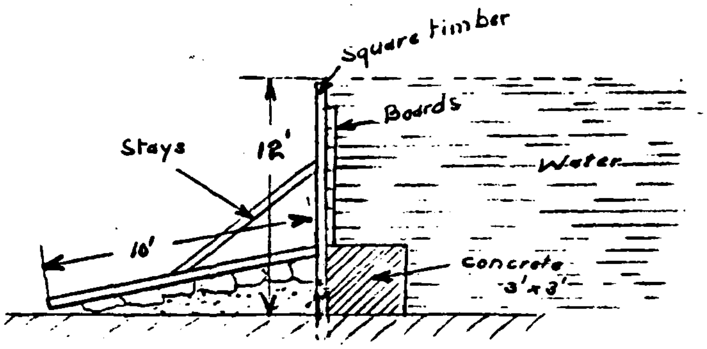
Conservation Commission, Albany, N.Y.
(Address—Street and number, P. O. Box or R. F. D. route)

Cooperstown, N.Y.
(Name of place)

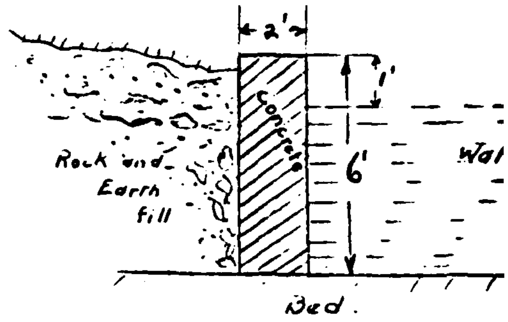
(SEE OTHER SIDE)

(In the space below, make one sketch showing the form and dimensions of a cross section through the spillway or waste-weir of this dam, and a second sketch showing the same information for a cross section through the other portion of the dam. Show particularly the greatest height of the dam above the stream bed, its thickness at the top, and thickness at the bottom, as nearly as you can learn.)

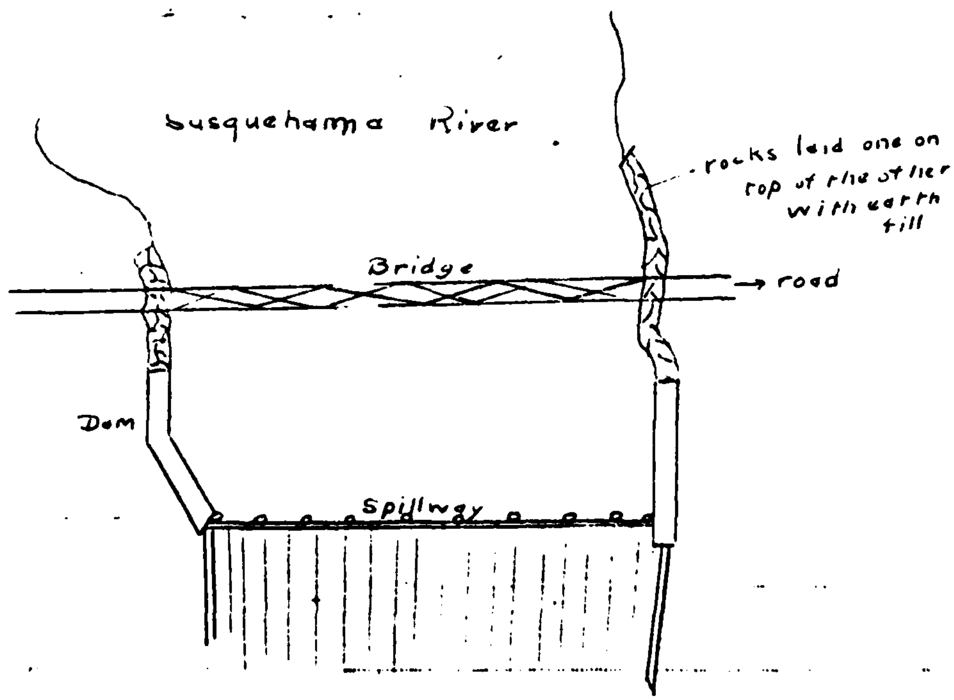
Cross-section thru Spillway.



Cross-section thru Dam.



(In the space below, make a third sketch showing the general plan of the dam, and its approximate position in relation to buildings or other conspicuous objects in the vicinity.



PREVIOUS INSPECTION REPORTS

DEC DAM INSPECTION REPORT outlet of Otsego Lake

RB	CTY	YR. AP.	DAM NO.	INS. DATE	USE	TYPE
06	39	01	000918	102971	002	4

Reconstructed of Concrete

AS BUILT INSPECTION

3 Location of Spillway and outlet

3 Elevations

3 Size of Spillway and outlet

3 Geometry of Non-overflow section

1 **GENERAL CONDITION OF NON-OVERFLOW SECTION**

1 Settlement

1 Cracks

1 Deflections

1 Joints

1 Surface of Concrete

1 Leakage

1 Undermining

1 Settlement of Embankment

1 Crest of Dam

1 Downstream Slope

1 Upstream Slope

1 Toe of Slope

1 **GENERAL CONDITION OF SPILLWAY AND OUTLET WORKS**

1 Auxiliary Spillway

1 Service or Concrete Spillway

1 Stilling Basin

1 Joints

1 Surface of Concrete

1 Spillway Toe

1 Mechanical Equipment

1 Plunge Pool

1 Drain

1 Maintenance

B Hazard Class

3 Evaluation

3 Inspector

COMMENTS:

new dam in good condition

APPENDIX F

REFERENCES

REFERENCES

1. Chow, Ven Te, Editor - Handbook of Applied Hydrology. McGraw-Hill Book Company, New York, New York, 1964.

2. Hydrologic Engineering Center, U.S. Army Corps of Engineers, HEC-1 Flood Hydrograph Package, Users Manual. Davis, California, January 1973.

3. Hydrologic Engineering Center, U.S. Army Corps of Engineers, Flood Hydrograph Package (HEC-1), Users Manual for Dam Safety Investigations, Davis, California, September 1978.

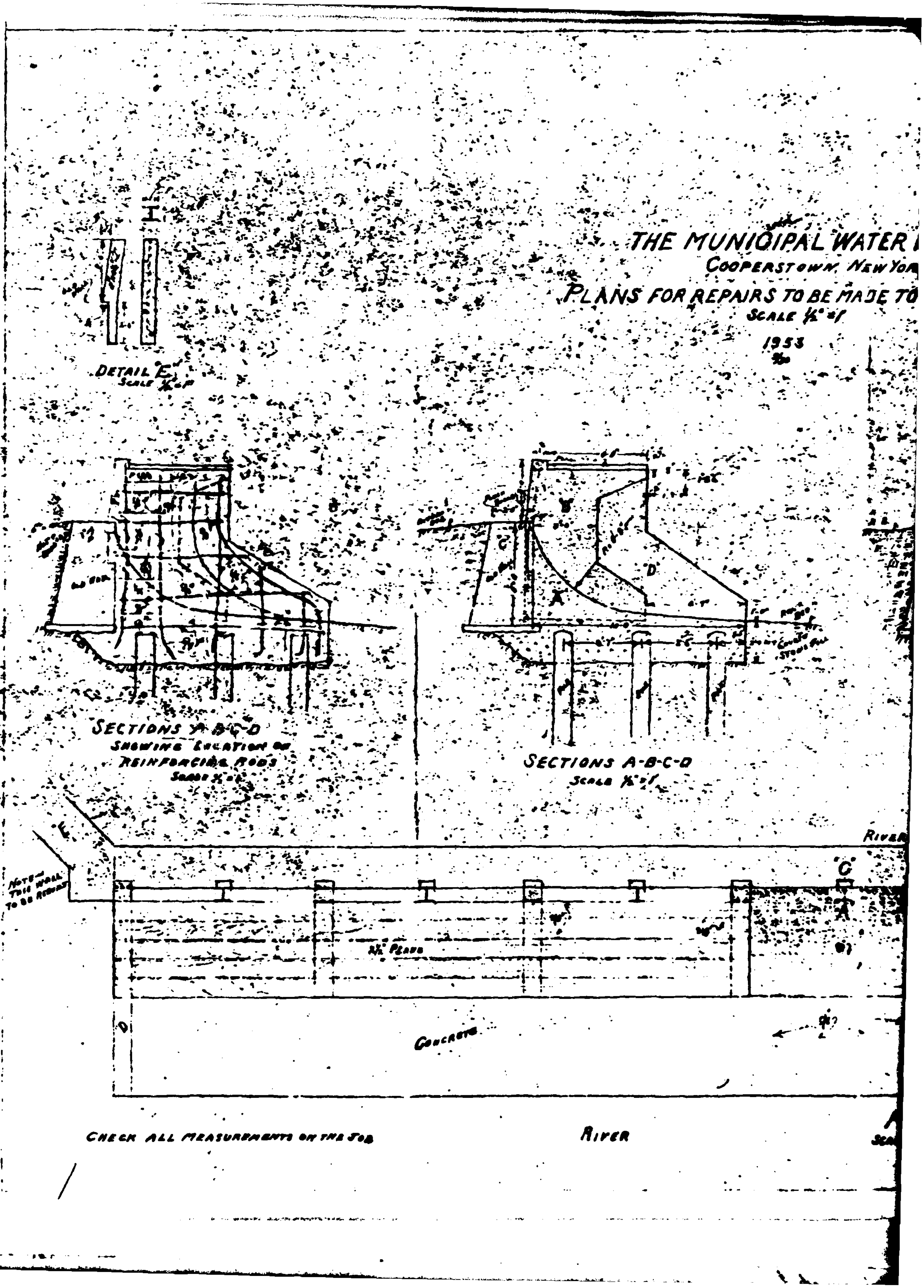
4. King, Horace and Brater, Ernest. Handbook of Hydraulics, 5th Edition. McGraw-Hill Book Company, New York, New York, 1963.

5. Riedel, J.T., Appleby, J.F. and Schloemer, R.W. Seasonal Variation of the Probable Maximum Precipitation East of the 105th Meridian for Areas from 10 to 1000 Square Miles and Durations of 6, 12, 24, and 48 Hours (Hydrometeorological Report No. 33) U.S. Department of Commerce - Weather Bureau and U.S. Department of the Army - Corps of Engineers, Washington, D.C., April 1956

6. U.S. Department of the Interior, Bureau of Reclamation, Design of Small Dams, Second Edition, Washington, D.C., 1973.

APPENDIX G

DRAWINGS


THE MUNICIPAL WATER
COOPERSTOWN, NEW YOR
PLANS FOR REPAIRS TO BE MADE TO
SCALE 1/2" = 1'
1953
DETAIL "E"
SECTIONS A-B-C-D
SCALE 1/2" = 1'
RIVER
CONCRETE
CHECK ALL MEASUREMENTS ON THE JOB
RIVER

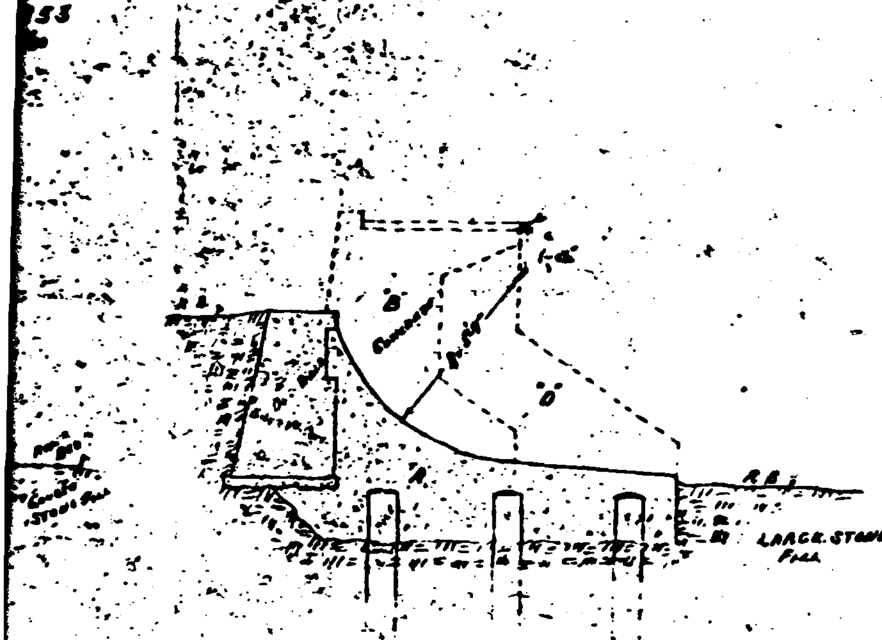
PAL WATER WORKS

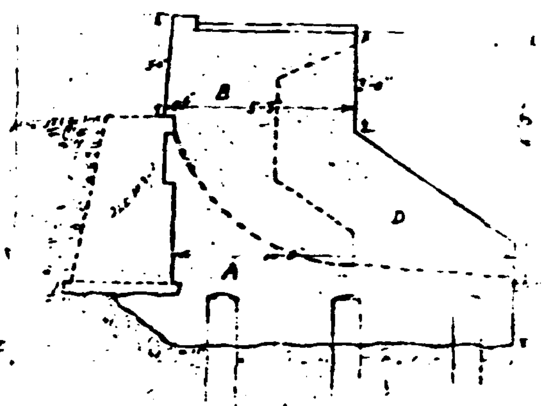
TOWN, NEW YORK

TO BE MADE TO PRESENT DAM

LE 1/2" = 1'

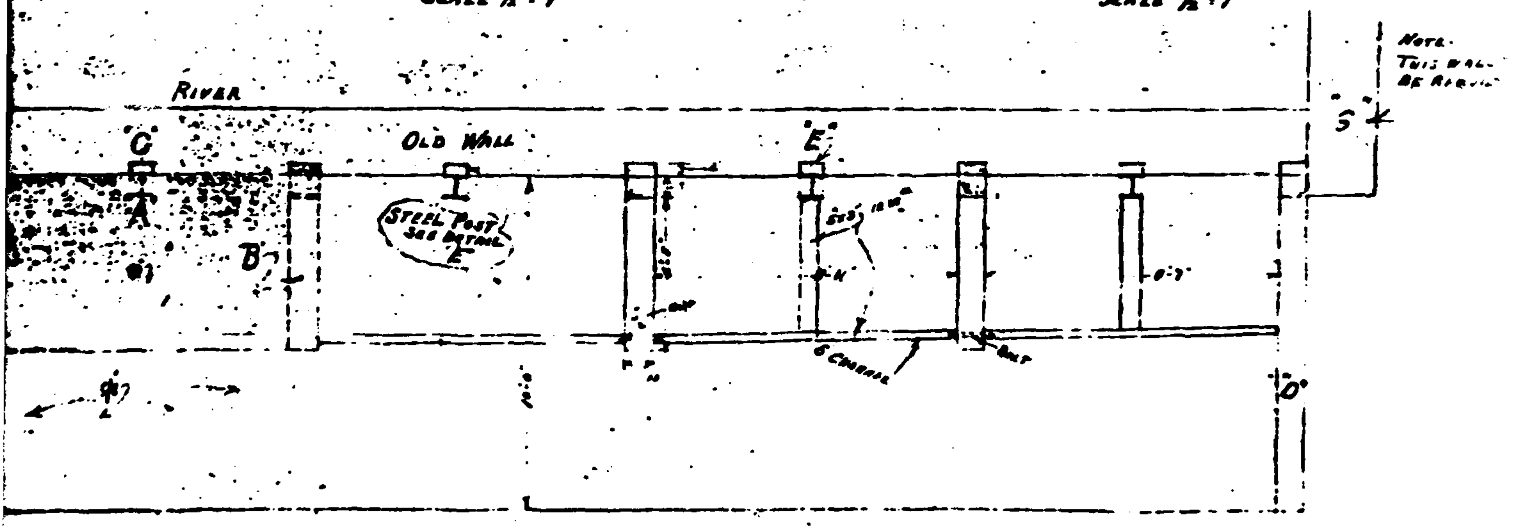
53





SECTION THRU "A"
SCALE 1/2" = 1'

SECTION THRU "D"
SCALE 1/2" = 1'



PLAN
SCALE 1/2" = 1'

2

END

DATE
FILMED

2-8

AD-A109 795 FLAHERTY-GIAVARA ASSOCIATES NEW HAVEN CT F/G 13/13
NATIONAL DAM SAFETY PROGRAM. OTSEGO LAKE DAM (INVENTORY NUMBER --ETC(U)
JUL 81 H C FLAHERTY DACW51-81-C-0006
UNCLASSIFIED NL

7 OF 7

END
DATE
FILMED
4-82
DTIC

AD
A10

SUPPLEMENTARY

INFORMATION

3175.	6361	7570	8727.	9723.	10429.	10792.	10787.	10427.	9777.
8968.	8121.	7288.	6904.	5797.	5173.	4623.	4134.	3697.	3304.
2948	2624.	2330	2063.	1821.	1606.	1437.	1303	1183	1075.
1007.	967.	929.	892.	856.	822.	790.	758.	728.	699.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	10792.	9087.	4021.	1661.	199290.
CMS	306.	257.	114.	47.	5643.
INCHES		2.29	4.06	4.19	4.19
MM		58.23	103.07	106.43.	106.43
AC-FT		45[illegible]6.	7975.	8235.	8235.
THOUS CU M		55[illegible].	9837.	10158.	10158.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

```
           0.     1000.     2000.     3000.     4000.     5000.     6000.     7000.     8000.     9000.     10000.     11000.     0.
 0.30   11
 1.00   21
 1.30   31
 2.00   41
 2.30   51
 3.00   61
 3.30   71
 4.00   81
 4.30   91
 5.00  101
 5.30  111
 6.00  121
 6.30  131
 7.00  141
 7.30  151
 8.00  161
 8.30  171
 9.00  181
 9.30  191
10.00  201
10.30  211
11.00  221
11.30  231
12.00  241
12.30  251
13.00  261
13.30  271
14.00  281
14.30  291
15.00  301
15.30  311
16.00  321
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18.00  361
18.30  371
19.00  381
19.30  391
20.00  401
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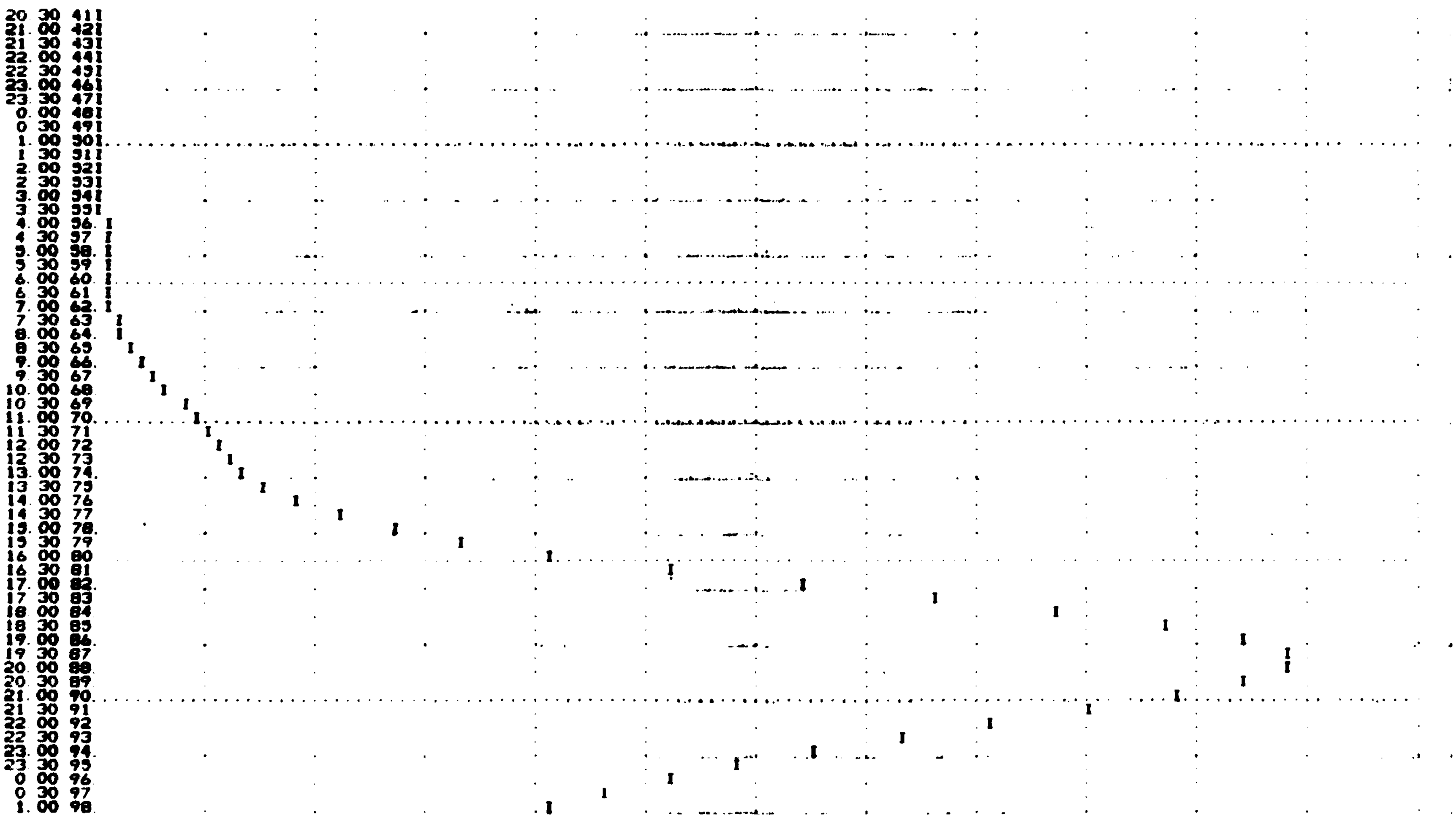
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2 30 53
3.00 54
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19 30 87
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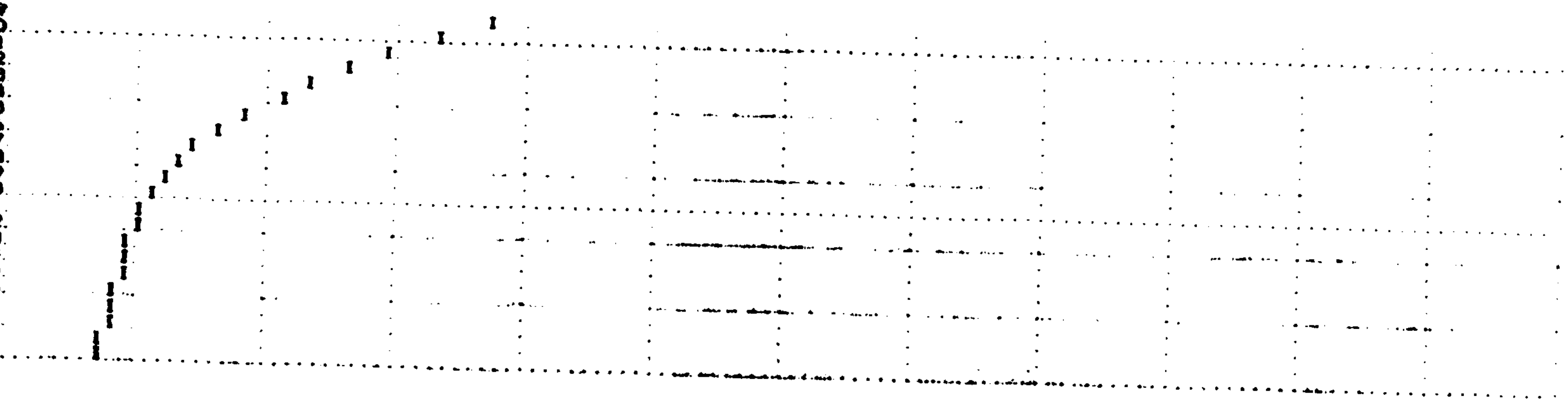
0 00 96
0 30 97
1.00 98



1 30 99
2.00100.
2 30101
3.00102.
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4.00104.
4 30105
5.00106.
5 30107
6.00108.
6 30109
7.00110.
7 30111
8.00112.
8 30113
9.00114.
9 30115
10.00116.
10 30117
11.00118.
11 30119
12.00120.

DVN

SUM OF 2 HYDROGRAPHS AT 1 PLAN 1 RTIO 5

20.	19.	18.	18.	17.	16.	16.	15.	15.	14.
13.	13.	13.	12.	12.	11.	11.	11.	10.	10.
10.	9.	9.	9.	9.	8.	8.	8.	8.	8.
8.	9.	9.	10.	10.	11.	11.	12.	12.	11.
11.	11.	10.	9.	8.	8.	7.	7.	7.	8.
12.	18.	26.	36.	48.	62.	75.	88.	100.	110.
124.	149.	191.	251.	332.	431.	544.	666.	789.	907.
1014.	1108.	1210.	1354.	1565.	1863.	2267.	2787.	3422.	4269.
5367.	6597.	7850.	9091.	10083.	10816.	11191.	11186.	10813.	10139.
9300.	8422.	7557.	6745.	6012.	5365.	4794.	4288.	3834.	3426.
3057.	2722.	2416.	2139.	1889.	1665.	1490.	1351.	1226.	1115.
1045.	1003.	963.	925.	888.	853.	819.	786.	755.	725.

	PEAK	6-HOUR	24-HOUR	72-HOUR	TOTAL VOLUME
CFS	11191.	9423.	4170.	1722.	206672.
CMS	317	267.	118.	49.	5852.
INCHES		2.38	4.21	4.35	4.35
MM		60.39	106.89	110.37	110.37
AC-FT		4673.	8271.	8540.	8540.
THOUS CU M		5764.	10202.	10534.	10534.

OVF

STATION 1

INFLOW(I), OUTFLOW(O) AND OBSERVED FLOW(*)

0 2000 4000 6000 8000 10000 12000 0 0 0 0 0 0

0 30 11
1 00 21
1 30 31

2 00	41	I
2.30	51	I
3 00	61	I
3.30	71	I
4 00	81	I
4.30	91	I
5 00	101	I
5.30	111	I
6 00	121	I
6.30	131	I
7 00	141	I
7.30	151	I
8 00	161	I
8.30	171	I
9 00	181	I
9.30	191	I
10 00	201	I
10.30	211	I
11 00	221	I
11.30	231	I
12 00	241	I
12.30	251	I
13 00	261	I
13.30	271	I
14 00	281	I
14.30	291	I
15 00	301	I
15.30	311	I
16 00	321	I
16.30	331	I
17 00	341	I
17 30	351	I
18 00	361	I
18.30	371	I
19 00	381	I
19 30	391	I
20 00	401	I
20.30	411	I
21 00	421	I
21 30	431	I
22 00	441	I
22.30	451	I
23 00	461	I
23.30	471	I
0 00	481	I
0.30	491	I
1 00	501	I
1.30	511	I
2 00	521	I
2.30	531	I
3 00	541	I
3.30	551	I
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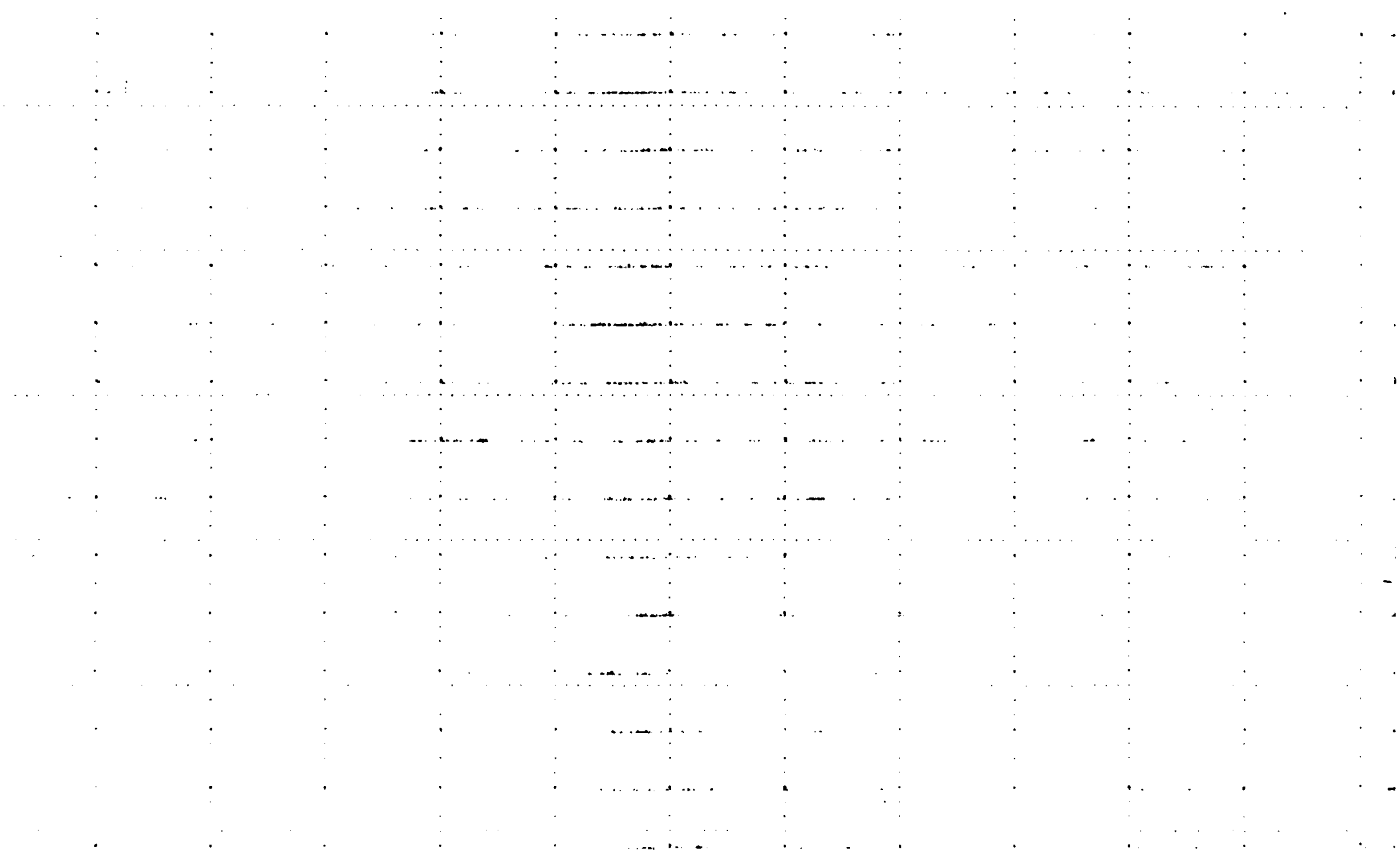

DATE
ILME